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A COMPARATIVE SURVEY OF THE
UNITED STATES COAST GUARD DISTRICT AIDS
TO NAVIGATION BRANCH OFFICES

ROYCE R. GARRETT

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A COMPARATIVE SURVEY OF THE UNITED STATES COAST GUARD
DISTRICT AIDS TO NAVIGATION BRANCH OFFICES

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Royce R. Garrett

A COMPARATIVE SURVEY OF THE UNITED STATES COAST GUARD
DISTRICT AIDS TO NAVIGATION BRANCH OFFICES

by

Royce R. Garrett

Lieutenant, United States Coast Guard

Submitted in partial fulfillment of
the requirements for the degree of

MASTER OF SCIENCE
IN
MANAGEMENT

United States Naval Postgraduate School
Monterey, California

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A COMPARATIVE SURVEY OF THE UNITED STATES COAST GUARD
DISTRICT AIDS TO NAVIGATION BRANCH OFFICES

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This work is accepted as fulfilling
the research paper requirements for the degree of

MASTER OF SCIENCE

IN

MANAGEMENT

from the

United States Naval Postgraduate School

ABSTRACT

To effectively fulfill the responsibility of administration and development of the aids to navigation system in the United States, the Coast Guard has assigned certain tasks to the different echelons of the Coast Guard Organization.

This study is a comparative survey of the twelve district branch offices which administer the operations of the aids to navigation system in each district. This study has provided a comparison of the division of work for the supervisors in the branch offices. Through the use of a scatter diagram relating the number of personnel in a branch office to work-load for that office, an approximating curve was drawn establishing a norm, or average for staffing branch offices. In addition, estimates of future personnel requirements for the branch offices were developed.

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

The mariner who goes to sea is assisted in his return to port by various aids to navigation--buoys, lights, fog signals, radio beacons--which are provided by the Coast Guard. In 1790 Congress first appropriated funds for lighthouses to be built in the United States initiating the aids to navigation system used by the mariner today. Prior to the granting of this appropriation the first lighthouse in America had been built in Boston in 1716 on the site of the latter-day Boston Light. Even before that time in the United States, bonfires or blazing barrels of pitch on headlands guided ships to port at night. Often, shipwreckers duplicated the crude beacons on lonely stretches of coast to lure ships onto the beach where they could be looted.¹

The importance of light as an aid to navigation was recognized thousands of years ago. Pharos, one of the Seven Wonders of the Ancient World, was a lighthouse built on an island near Alexandria, Egypt, about 260 B.C.² The Romans also constructed lighthouses in many areas as are visible in some ruins today. Originally, the light was furnished

¹United States Coast Guard, Treasury Department, Coast Guard History. No. CG-213. (Washington: Government Printing Office), p. 26.

²Morris Weeks, Jr. (ed.), The Complete Boating Encyclopedia (New York: Golden Press, Inc., 1964), p. 331.

by beacon fires of wood or coal, sometimes tended by priests.³

One of America's earliest fog signals, a loud cannon which started booming in 1719, was located in Boston, whereas the first buoys had appeared in the Delaware River by 1767. The earliest lightship station was at Craney Island in Hampton Roads, Virginia, where a decked-over small boat was moored in 1820, and the first off-shore lightship was stationed off Sandy Hook, New Jersey, in 1824.⁴

In Colonial times, aids to navigation were built and maintained by the various localities. The responsibility for these aids to navigation was assumed by the Federal Government in 1789, when the Lighthouse Service was established in the Treasury Department. The Service was under the Treasury Department's Revenue Marine Bureau from 1845 to 1852, and its Lighthouse Board from 1852 to 1910. Then the Lighthouse Service was a Commerce Bureau under the jurisdiction of the Commerce Department from 1910 to 1939 when it was returned to the Treasury Department. At this time the Lighthouse Service was absorbed by the Coast Guard.⁵

The electronic age has made possible the development of additional aids to navigation, including radiobeacons, LORAN or long-range aids to navigation, radio-controlled aids to navigation, and shore-based radar. Today the aids

³Ibid.

⁴Coast Guard History, loc. cit.

⁵Ibid.

to navigation branch of the Coast Guard maintains over 42,000 aids to navigation, including buoys, lights, day-beacons, electronic aids, and lightships distributed along the coastal and inland waterways of the United States and the Virgin Islands.⁶

In order that these aids to navigation may be adequately maintained, the Coast Guard has light attendant stations, stations with secondary aids to navigation duties, several bases with maintenance shops, and a fleet of over one hundred buoy tenders. These manned units are administered by the aids to navigation branch offices of the twelve Coast Guard District Offices.

THE PROBLEM

Purpose of the Study. Since the meager beginnings of the Lighthouse Service to the present system of aids to navigation, many changes have taken place. For example, electric power has replaced the wood, oil, and gas used originally for a power source for lights. During a recent tour of duty as assistant chief of a district aids to navigation branch office, the investigator became aware that, just as technology has developed a better power source for lights, there were also opportunities for developments within the field of management that would assist the branch offices in

⁶See TABLE III, Page 24

better fulfilling their function of administering aids to navigation.

An area for consideration might be personnel. The present manning levels for the district aids to navigation branch offices have been developed without systematic comparison between the branch offices. However, a comparison of these branch offices is complicated by the different aids to navigation requirements created by the geographical conditions in each district. Nevertheless, there must be some standards on which the different districts could be compared effectively. In addition, for purposes of long-range planning, estimates of the number of personnel required for the future staffing of the district branch offices would be invaluable.

Limitations. This paper was not intended to be a management audit of each branch office since the investigator could visit only two of the twelve district branch offices, and the information provided in the questionnaires was not verified by personal observation.

The estimates of the division of work for the supervisors were made for as typical a week as possible with the realization that the estimates might be affected by the division of work for the period immediately prior to answering the questionnaire.

The question dealing with the increase in work load for each branch office was difficult to answer accurately

since statistics have not been maintained from year to year. These estimates then, were likely affected by the work load of the period prior to answering the questionnaire.

The estimates obtained from the Approved Corps of Engineers River and Harbor Improvement Projects, Form CG-3740, are considered as reliable as can be obtained three years in advance. However, there are other expenditures not appearing on these reports which will be made in the next three years in the aids to navigation system.

The possible effect on aids to navigation by future legislation extending the United States territorial waters to twelve miles was not taken into consideration in this paper.

DEFINITION OF KEY TERMS

Aid to Navigation. Any device, external to a vessel or aircraft, intended to assist a navigator in determining his position or safe course, or to warn him of dangers or obstructions to navigation shall be called an aid to navigation. When used in tables, the term may be abbreviated as AtoN.

Branch Office. When used alone in this paper, the term shall refer to the Aids to Navigation Branch Office in a Coast Guard District. The Branch Office is a sub-division of a Division in a Coast Guard District.

Buoy. In this study, the term "buoy" shall represent

a floating object moored in place to serve as an aid to navigation. A lighted buoy is a buoy with a light providing identification and recognition in darkness or low visibility.

Buoy Tender. Within this paper a ship or boat used to service and maintain aids to navigation shall be called a buoy tender. These vessels have a boom or derrick for lifting buoys and equipment, and some buoy tenders are capable of driving pilings.

Commandant. When used alone, the term shall refer to the Commandant of the Coast Guard. Commandant(OAN) shall refer to the Chief, Aids to Navigation Division at Coast Guard Headquarters.

Corps of Engineers. In this paper the District Director of United States Army Corps of Engineers shall be referred to as Corps of Engineers.

Daybeacon. An unlighted marker erected on the shore or in shoal water as an aid to navigation and usually made conspicuous by its coloring, shape or size shall be called a daybeacon.

Daymark. The term "daymark" shall refer to the daytime identifying characteristics of an aid to navigation, and/or a conspicuous target added to a daybeacon or light.

District. For immediate administration and operation of the Coast Guard, the United States is divided into twelve Coast Guard districts.

Division. Both Coast Guard Headquarters and District Offices are divided into divisions each of which performs

different missions. The District Aids to Navigation Branch is a sub-division of the Operations Division.

Electronic Aids. Aids to navigation emitting electronic signals, radiobeacons, LORAN, shore-based radar, shall be referred to as electronic aids.

Federal Aid to Navigation and Private Aid to Navigation. A federal aid to navigation is provided and maintained by the federal government for the benefit of the Armed Forces or commerce. A private aid to navigation is established by an individual with permission of the Commandant. The private aid to navigation must conform to the standard United States system of aids to navigation.

Fog Signal. An aid to navigation to provide a warning in fog or thick weather is a fog signal. When used in this paper it will represent all types of sound instruments, such as diaphones, horns, sirens, bells, and others, but it will not include signals mounted on buoys.

Light. An aid to navigation providing a light from a fixed structure shall be referred to as a light. The size of the structures vary in height from a few feet to over one hundred feet. The light is usually coded for identification purposes.

Light Attendant Station. A Coast Guard Station with the primary duty of servicing aids to navigation is referred to as a Light Attendant Station. These stations are usually small with two to four men attached. When used in tables, the term may be abbreviated as LAS.

Local Notice to Mariners. A publication issued by each of the twelve district offices for the dissemination of information concerning changes in aids, hazards to navigation, and related factors affecting operation of vessels in navigable waters, is called Local Notice to Mariners.

Private Aid to Navigation. See Federal Aid to Navigation.

Supervisor. As used in this paper the term "supervisor" shall refer to staff members with civilian ratings of GS-9 or above, and all commissioned officers.

TAD. The term "TAD" is the abbreviation for Temporary Additional Duty. When staff members are required to travel to conduct inspections and attend to other official duties, they are proceeding under TAD.

CHAPTER II

ORGANIZATION, RESPONSIBILITY, AND AUTHORITY FOR THE AIDS TO NAVIGATION SYSTEM IN THE UNITED STATES

General Responsibility and Authority. The Coast Guard is responsible for the development, administration, and operation of the aids to navigation system of the United States to serve the needs of the maritime commerce and the Armed Forces; the control of private aids to navigation in the navigable waters of the United States and on the continental shelf; the prescribing of lights and other signals to mark bridges and other obstructions to navigation located in the navigable waters of the United States; and the dissemination of information to mariners concerning the operations of the Coast Guard.⁷

Statutory Authority. The basic provisions of law relating to the establishment and maintenance of the aids to navigation system are summarized in the following citations:

(1) (The Congress shall have power) To regulate commerce with Foreign Nations, and among the several States, and with the Indian Tribes. (U.S. Constitution Art. 1, Para 8, clause 3)

(2) (The Coast Guard shall have responsibility for) Development, establishment, operation, and maintenance of aids to maritime navigation required to serve the needs of the Armed Forces and commerce of the United States (14 U.S.C. 2, 81(1); 33 CFR, Part 62).

(3) (The Coast Guard shall have responsibility for) Development, establishment, operation, and maintenance of aids to air navigation required to serve the needs of the Armed Forces of the United States as requested by the Secretary of the appropriate department within the Department of Defense (14 U.S.C. 2, 81(2); 33 CFR, Part 62).

⁷United States Coast Guard, Treasury Department, Aids to Navigation Manual. No. CG-222 (Washington: Government Printing Office), p. 1-2.

(4) (The Coast Guard shall have responsibility for) Development, establishment, operation, and maintenance of LORAN stations required to serve the needs of the Armed Forces of the United States, of the maritime commerce of the United States, or as determined by the Administrator of the Federal Aviation Agency, of the air commerce of the United States (14 U.S.C. 2, 81(3); 33 CFR, Part 62).

(5) (The Coast Guard shall have responsibility for) Prescribing lights and other signals to be displayed from structures located in the navigable waters of the United States as authorized by the permit for the erection of any such structure issued by the Chief of Engineers, United States Army (14 U.S.C. 85; 33 CFR, Part 66).

(6) (The Coast Guard shall have responsibility for) Dissemination of information to mariners concerning aids to navigation under the jurisdiction of the Coast Guard, including the publication and distribution of Light Lists and Notices to Mariners (14 U.S.C. 91(f); 44 U.S.C. 213; 33 CFR, Part 72).

(7) (The Coast Guard shall have responsibility for) Regulation of establishment, maintenance, and discontinuance of private aids to navigation (14 U.S.C. 83; 33 CFR, Part 66 and 67).

(8) (The Coast Guard shall have responsibility for) Marking of anchorage areas and quarantine areas which have been defined and established by proper authority (33 U.S.C. 472; 33 CFR, Part 62).

(9) (The Coast Guard shall have responsibility for) Marking of wrecks sunk in the navigable waters of the United States when the owner has failed to mark or failed suitably to mark any such wreck, and after abandonment, the marking of any such wreck for and on behalf of the Department of the Army (14 U.S.C. 85; 33 CFR, Part 64).

(10) (The Coast Guard shall have responsibility for) Prescribing lights and other signals necessary for the safety of marine navigation to be displayed from bridges over the navigable waters of the United States (14 U.S.C. 85; 33 U.S.C. 494; 33 CFR, Part 68).

(11) (The Coast Guard shall have responsibility for) Enforcement of laws for the protection from interference or damage to aids to navigation maintained by or under authority of the Coast Guard (14 U.S.C. 83, 84, 85, 647; 33 U.S.C. 408, 411, 412; 33 CFR, Parts 70 and 74).

(12) (The Coast Guard shall have responsibility for) Designation of coloring and numbering of buoys (14 U.S.C. 87; 33 CFR, Part 62).

(13) (The Coast Guard shall have responsibility for) Establishment, operation and maintenance of aids to navigation for primary benefit of Federal agencies other than the Armed Forces (31 U.S.C. 686; 33 CFR, Parts 62 and 74).

Organization. To effectively carry out the statutory responsibilities of the Coast Guard for aids to navigation, each echelon of the Coast Guard's organization is assigned certain tasks.

(1) Commandant. Coast Guard Regulations contain the general responsibilities of the Commandant with respect to aids to navigation. In carrying out his overall responsibility for aids to navigation matters, the Commandant is assisted by the staff components at Headquarters. The Coast Guard Organization Manual, CG-229, indicates the functions of the various offices and divisions comprising the staff of the Commandant.

The primary task of the Chief, Aids to Navigation Division, is to administer and supervise the operation of the aids to navigation system. He formulates policy, plans and procedures to assure coordination, uniformity, efficiency, and economy in the operation of the system; reviews for approval all recommendations from the districts regarding establishment, discontinuance, or changes in aids to navigation; maintains the Light Lists and assembles material for Notices to Mariners; and keeps the records necessary for proper accomplishment of these tasks.⁸

(2) District Commander. The United States is divided into districts "for the immediate administration and operation of the Coast Guard".⁹ The District Commander is responsible for the administration of aids to navigation activi-

⁸Ibid., p. 1-3.

⁹Ibid.

ties within his district. Coast Guard Regulations outline his general responsibilities in this regard, and the Organization Manual (CG-229) gives more detailed information as to the functions of various staff components assisting the District Commander. See Figure 1, Page 13, for the functions of the Aids to Navigation Branch.

Specific tasks assigned to and administrative procedures used by the District Commander are contained in Appendix A of Aids to Navigation Manual (CG-222).

The duties of staff officers are contained in United States Coast Guard Officer and Billet Classification Manual, CG-355. See Figure 2, Page 14, for the duties of the District Aids to Navigation Officer.

FIGURE 1

AIDS TO NAVIGATION BRANCH (FROM COAST GUARD ORGANIZATION MANUAL)

Under the direction and supervision of the Chief, Operations Division, the Chief, Aids to Navigation Branch shall:

- 1.- Administer and supervise the operation of the aids to navigation system in the district.
2. Develop a program for insuring adequacy and efficiency in the system of aids to navigation in the district; be cognizant of aids to navigation requirements to insure continuous effective coverage and maintain close relationship with the U.S. Engineers, the Coast and Geodetic Survey (or the Lake Survey), the Naval Hydrographic Office, the Civil Aeronautics Administration, and other public and private agencies, as appropriate, to insure cooperation and coordination in aids to navigation matters of mutual concern and interest.
3. Prepare data for Light Lists, Notices to Mariners, and radiobeacon charts and disseminate information regarding hazards to and aids to navigation by means of local Notices to Mariners and other appropriate communications.
4. Administer the program for the operation of lightships, light stations, depots, and tenders allocated to aids to navigation duties; cooperate and coordinate with other cognizant district staff officers in instances when operating facilities are utilized jointly on aids to navigation and other types of duties.
5. Initiate or review requests for new, or modification of existing installations for use in aids to navigation activities, and indicate justification for required funds. Recommend and justify allowances of buoys and other aids to navigation equipment required to maintain authorized aids to navigation in effective operational status, and to temporarily mark sunken wrecks.
6. Review Plans for construction or alteration of bridges and marine structures to determine requirements for appropriate lights and signals and assure adequate inspection of such installations.
7. Review proposals for the establishment of private aids to navigation and assure adequate inspections of all private aids.

FIGURE 2

DISTRICT AIDS TO NAVIGATION OFFICER (EXTRACT FROM U.S. COAST GUARD OFFICER AND BILLET CLASSIFICATION MANUAL, CG-355)

Administers and supervises development and operation of aids to navigation system within district; Develops plans and procedures for establishment, alteration, disestablishment and operation of aids to navigation including LORAN and other electronic aids, and initiates implementing directives; maintains cognizance of aids to navigation requirements, and initiates, or reviews and evaluates requests for new aids, or modification of existing aids, including private aids; coordinates with legal officers for legal implications and advice relative to aids; recommends and justifies changes in allowances and accompanying expenditures of funds; coordinates with engineers on construction, installation, maintenance, relocation and inspection of aids, and assures preparation and issuance of orders and instructions thereon; administers program for operation of lightships, light stations, depots, tenders, and other units designated for aids to navigation functions, and for seasonal relief or recharging of aids; reviews plans and proposals for construction of bridge and marine structures for adherence to light and signal requirements; provides for inspection of aids to navigation facilities and installations, ashore and afloat, including private aids, bridge lighting and signals; analyzes and evaluates inspectional, statistical and other reports, and effects corrective action where deficiencies exist; establishes wreck buoys and buoys for marking Federal Anchorages; assures preparation, assembly and dissemination of accurate data on aids, on changes thereto and on hazards, for publication in Light Lists and Notices to Mariners; maintains records of all aids; effects liaison with other Coast Guard units, with Corps of Engineers, and with other interested military and civil agencies on aids to navigation matters, and coordinates matters thereon; directs and supervises preparation and revision of aids to navigation operational and mobilization plans.

CHAPTER III

THE STUDY

Method. The Commandant(OAN) was contacted and permission was obtained to conduct a comparative survey of the twelve aids to navigation branch offices, to determine what changes or improvements, if any, might be made in the branch offices. To obtain data for a comparative analysis of the branch offices, two sources of information were used. Data was collected from reports which had been sent to the Commandant by each district commander, and from Coast Guard publications providing statistics about manned Coast Guard units. This information provided a basis for measuring the quantity and type of aids to navigation that are managed by each branch office.

To obtain information about the internal organization of each branch office, a questionnaire was sent to each of the twelve branch office chiefs. Included in the questionnaire was a request for copies of the position descriptions and branch organizations. All of the questionnaires were returned completed, and copies of most of the documents requested were returned.

Telephone interviews were conducted with two branch chiefs and a visit was made to the Twelfth Coast Guard District Office for interviews with each staff member of the branch office. In addition, the investigator served as the Assistant Chief, Aids to Navigation Branch in the Seventh

Coast Guard District for twenty months.

Materials.

A. The following reports were obtained from the Commandant(OAN) and data extracted from them.

1. Approved Corps of Engineers River and Harbors Improvement Projects, Form CG-3740, as submitted for the calender years 1962 through 1964.

2. Quarterly Report of Operation of Aids to Navigation, Form CG-2789, as submitted for each quarter beginning with January, 1962, through the quarter ending with December, 1964.

3. Summary of Inspection and Relief of Aids to Navigation for the years ending December 31, 1961, 1962, and 1963. The report was useful in verifying information given by Form CG-2789, but it was discontinued after 1963.

B. Operating Facilities of the U. S. Coast Guard, CG-244, was used to obtain data concerning manned field units in each district.

C. From each Branch Office copies of the following documents were requested:

1. United States Civil Service Commission Position Description for each civilian employee attached to the Branch Office.

2. A description of the positions for military personnel in the Branch Office.

3. An Organization Chart or Functional Chart for

the Branch Office.

D. From the completed questionnaires sent to the Chief of the Branch Office of each District, the following information was obtained:

1. Personnel allowance for each branch office stating the rank or GS number of the allowance, and of the person actually filling the position, and a percentage of vacancy for each position during the past three years.

2. An estimate of the division of work by each supervisor on a weekly basis by hours, and on a yearly basis by days.

3. An estimate of the change in work load for each branch office during the past three years. If an increase was noted, a breakdown of types of work that had increased was requested.

4. The number of U. S. Corps of Army Engineer District Offices with which liaison must be maintained.

5. An estimate of the number of aids to navigation inspected by branch office personnel each year.

6. The number and rank of all personnel added to the branch office during the past three years.

7. Change in positions of branch office personnel during the past three years.

8. Anticipated additional personnel to be required in the branch office during the next three years.

Procedures.

A. Review the organization, responsibility, and authority for the Coast Guard to maintain an aids to navigation system in the United States.

B. Trace the statutory authority of the District Commander to administer, develop, and supervise the operation of aids to navigation within the Coast Guard District boundaries.

C. Collect the statistics and data about the operation and administration of the aids to navigation system in each district for purposes of evaluation and comparison.

D. Conduct an analysis and synthesis of the results of the statistical data gathered.

E. Report conclusions, implications, and if appropriate, make recommendations for improvements or changes in the type or number of personnel assigned to the branch offices.

CHAPTER IV

RESULTS OF THE STUDY

This chapter presents the statistics of the survey as collected for this study. Presentation is by discussion of the results and by tabulations. The tables present full statistics, but only the major points are commented on in the paper.

Number of Operating Units Requiring Administration By The Aids To Navigation Branch Office. Using Operating Facilities of the U. S. Coast Guard, CG-244, tabulations of the number of buoy tenders, manned light stations, light attendant stations, LORAN stations, and stations with secondary aids to navigation duties have been presented in Table I Page 20 for each district. All of these facilities have aids to navigation duties which require reports and records that necessitate correspondence by the Aids to Navigation Branch Office.

The Ninth District has 140 manned units with aids to navigation duties, including thirteen buoy tenders. The First District is second largest with 96 manned units, including seven buoy tenders. The Third District has 64 manned units, 32 of which are light stations, and the Seventh District has 58 manned units with aids to navigation duties, including 14 buoy tenders. The remaining districts have 46 or less manned units with aids to navigation duties.

TABLE I
NUMBER OF OPERATING UNITS REQUIRING ADMINISTRATION
BY THE AIDS TO NAVIGATION BRANCH OFFICE

District	Manned Lt. Stations	Buoy Tenders-Sargoing	Buoy Tenders-Coastal	Buoy Tenders-Inland	Stations with Aton Duties	Light attendant Secondary	Light attendant Stations	Lightships	Total Buoy Tenders	Total Manned Aton Units	Rank Order
First	65	5	2	14	5	4	7	96	2		
Second				15	12			15	27	10	
Third	32	3	4	4	10	4	2	5	11	64	3
Fifth	8	3	2	7	10	8	2	2	12	42	6
Seventh	17	3	4	7	8	10	7		14	58	4
Eighth	11	2	1	6	12	12	2		9	46	5
Ninth	80	7	1	5	42	4		1	13	140	1
Eleventh	8	1			2	1	2		1	14	12
Twelfth	17	2		2	2		1	2	4	26	11
Thirteenth	21	3	1	1	11	1	2	2	5	42	7
Fourteenth	3	5			1	1	26		5	36	8
Seventeenth	14	7	1	1			10		9	33	9

However, the Eleventh District has only fourteen manned aids to navigation units, including one buoy tender.

As automation of lights and fog signals becomes more common, the number of manned light stations should be reduced, easing the work-load in the area of correspondence, and personnel.

The Second, Third, Fifth, Seventh, and Ninth Districts have more than ten buoy tenders each. The administration of buoy tenders should require more time for the branch office than light stations and stations with secondary aids to navigation duties.

Report of Operation of Aids to Navigation. Quarterly Report of Operation of Aids to Navigation Form CG-2789 is submitted to the Commandant(OAN) to provide information for budgetary purposes. This report provides the number of aids to navigation on station on the last day of the quarter reported, and includes all aids to navigation, permanent, temporary and experimental, operated by or under authority of the Coast Guard. Table II Page 23 provides a compilation of statistics from the quarterly reports submitted for the quarter ending December 31, 1961, and Table III Page 24 provides identical data for the quarter ending December 31, 1964. Table IV Page 25 provides the increase or decrease in aids to navigation for each district for the period from December 31, 1961, to December 31, 1964. The Eighth District had the largest increase in both federal and private aids

to navigation showing an increase of 620 federal and 2,385 private aids to navigation. The Second District had an increase of 347 federal and 982 private aids to navigation. The third largest increase was shown by the Third District with 255 federal and 436 private aids to navigation. The fourth largest increase was in the Seventh District with an increase of 232 federal and 55 private aids to navigation. Each of the remaining districts showed fewer than 200 new federal aids to navigation for the three year period. Practically no gains were shown by the First, Eleventh, and Fourteenth Districts, and the Seventeenth District had a loss of 72 federal aids to navigation during the three year period.

As a matter of interest, the Eighth District has a total of 11,554 private aids to navigation, while the districts with the next highest number of private aids to navigation is the Second District with 1,456, and the Ninth District with 1,307. The majority of the private aids to navigation under the Eighth District mark oil wells in the Gulf of Mexico.

The Second District has the largest number of federal aids to navigation with a total of 10,489, of which 7,013 are unlighted buoys. Next, is the Seventh District with 5,981, of which 2,875 are daybeacons and 1,638 are lights. Third in rank order is the Eighth District with 5,873 federal aids to navigation, with 3,282 unlighted buoys, and 1,583 lights. The Fifth District ranks fourth with 4,813

NUMBER OF AIDS TO NAVIGATION IN OPERATION DECEMBER 31, 1961,

WITHIN EACH COAST GUARD DISTRICT

District	FEDERAL AIDS TO NAVIGATION								PRIVATE AIDS TO NAVIGATION							
	Electronic Aton	Lights	Lighted Buoys	Unlighted Buoys	Fog Signals	Daybeacons	Total Number of Federal Aton	Lights	Lighted Buoys	Unlighted Buoys	Fog Signals	Daybeacons	Total Number of Private Aton	Lighted Bridges Group 1*	Lighted Bridges Group 2*	
First	30	252	295	2,368	107	206	3,258	49	17	589		655	60	14		
Second		2,719	89	6,605		729	10,142	474				474	424	14		
Third	60	583	442	2,213	88	258	3,644	217	9	293	37	64	620	289		
Fifth	17	1,426	470	1,526	62	1191	4,692	221	3	80	11	63	378	169	29	
Seventh	37	1,521	448	1,040	3	2700	5,749	107	12	60		153	332	125	118	
Eighth	18	1,420	275	3,072	18	450	5,253	6283	4	976	839	1067	9169	191	71	
Ninth	60	640	3	1,111	123	87	2,024	448	93	466	23	31	1061	381	2	
Eleventh	8	98	66	40	35	342	589	45	6	64	4	15	134	3	10	
Twelfth	14	285	194	183	56	49	781	53	1	17	35	13	119	34	12	
Thirteenth	25	969	193	450	67	139	1,843	51	1	42	23	57	174	124		
Fourteenth	35	131	128	291		107	692		2	70		39	111			
Seventeenth	24	464	134	204	16	182	1,024	22					22		1	
Totals	328	10,508	2737	19,101	575	6440	39,691	7970	148	2,657	972	1602	13249	1800	271	

*Group 1 Inspected each year
Group 2 Inspected every three years

WITHIN EACH COAST GUARD DISTRICT

*Group 1 Inspected each year
Group 2 Inspected every three years

INCREASE OR DECREASE OF AIDS TO NAVIGATION WITHIN EACH COAST GUARD
DISTRICT BETWEEN DECEMBER 31, 1961 AND DECEMBER 31, 1964

TABLE IV

District	FEDERAL AIDS TO NAVIGATION								PRIVATE AIDS TO NAVIGATION							
	Electronic Aton	Lights	Lighted Buoys	Unlighted Buoys	Fog Signals	Daybeacons	Total Number of Federal Aton	Lights	Lighted Buoys	Unlighted Buoys	Fog Signals	Daybeacons	Total Number of Private Aton	Lighted Bridges Group 1*	Lighted Bridges Group 2*	
First	-2	0	+27	+3	0	-1	+27	+3	+5	-94	0	+7	-79	0	0	
Second	0	-94	-24	+408	0	+57	+347	+982	0	0	0	0	+982	0	0	
Third	-34	+128	+188	-81	0	+54	+255	+211	+30	+134	+3	+28	+406	+3	0	
Fifth	-1	+104	+3	-241	+7	+255	+121	- 14	+28	+59	+4	+6	+83	+4	+4	
Seventh	-15	+117	+36	-81	0	+175	+232	-3	0	+11	0	+47	+55	0	0	
Eighth	-2	+163	+90	+210	0	+59	+520	+1916	+6	+11	+417	+57	+2385	+4	+15	
Ninth	+3	+31	+540	+576	-7	-5	+1138 ^a	+135	+1	+100	0	+10	+246	+3	0	
Eleventh	+2	+9	-2	-4	+1	+1	+7	+51	+8	+50	-1	-7	+101	+1	0	
Twelfth	0	+54	+46	+10	+1	+35	+146	0	0	+1	-2	0	-1	+1	0	
Thirteenth	0	+53	+ 4	+14	+8	+41	+120	+26	+7	+1	+3	+30	+67	+8	0	
Fourteenth	-1	+16	+9	-1	0	-9	+14	+14	0	+29	0	0	-15	+1	0	
Seventeenth	+1	+10	-1	-42	0	-40	+72	+13	0	0	0	0	+13	0	0	
Total ^b	-49	+591	+372	+563	+10	+622	+2109	+3334	+85	+222	+424	+178	+4243	+19	+19	
Average	-16	+197	+124	+188	+3	+207	+703	+1111	+28	+74	+141	+59	+1414	+6	+6	

^a This does not reflect true increase in Aton. Changes in ice conditions and the removal of Aton during the ice season will cause the numbers of buoys on station December 31 each year to vary. For the two year period of October 1, 1962 to October 1, 1964, the changes were: Electronic Aton 0, Lights +44, Lighted Buoys +2, Unlighted Buoys +368, Fog Signals -5, Daybeacons -2, Total Federal Aton +406.

^b Totals reflect estimated changes for the Ninth District to correct for errors caused by removal of Aton during ice season.

federal aids to navigation, 1,530 of which are lights, 1,446 daybeacons, and 1,285 unlighted buoys. Fifth in order is the Third District with 3,899 federal aids to navigation of which 2,132 are unlighted buoys. Next, is the First District with 3,285 federal aids to navigation of which 2,371 are unlighted buoys. Seventh in order is the Ninth District with 3,162 federal aids to navigation of which 1,687 are unlighted buoys. Eighth in order is the Thirteenth District with 1,963 federal aids to navigation. Ninth in order is the Seventeenth District with 952 federal aids to navigation, followed by the Twelfth, Fourteenth, and Eleventh Districts with 927, 706, and 596 federal aids to navigation.

Report of Projects Related to Corps of Engineers Rivers and Harbor Improvements. Annually, on 1 January, the district commander submits to the Commandant(OAN) a summary of all River and Harbor Improvement projects in his district upon which the Corps of Engineers plans to expend federal funds during the ensuing three fiscal years. Table V Page 28 provides a tabulation of the number and type of new aids to navigation to be provided for the fiscal years 1965-1968, the money to be spent for aids to navigation of river and harbor projects for the same period of time, and the increase or decrease in annual maintenance costs due to these changes.

These changes do not include all annual expenditures or changes to the aids to navigation system of each district. Military projects or classified projects which are not

designed for the benefit of commerce would not be included in this report. Temporary establishment of aids to navigation, some projects for the benefit of the Coast Guard that do not improve the service to the mariner, and miscellaneous projects costing less than \$1,000.00 have been eliminated. These additional expenditures will affect the funds to be expended during the ensuing three years, but the information is not readily available and generally is expended from the operating expenses of the Coast Guard.

The largest portion will be made in the Eighth District with \$3,696,750 or 63 per cent of the total expenditure. The primary increase in aids to navigation will be for 1,400 buoys to be established in the Coosa River's Project to Montgomery, Alabama; however, twenty-six other projects contribute to make a total of 1,648 buoys, 64 lights, and 31 daybeacons.

The Ninth District will receive \$592,880 for 10.1 per cent of the expenditure, but will only increase its aids to navigation by 47 buoys and 20 lights.

The Seventh District will increase its buoys by 5, its lights by 91 and its daybeacons by 178, for an expenditure of \$358,100. This is 6.5 per cent of the total expenditure.

The Thirteenth District expects to increase its buoys by 34, lights by 68, and daybeacons by 2, for an expenditure of \$366,000 or 6.2 per cent of the total expenditure.

The remaining districts expect less than 5 per cent each of the total \$5,873,080 to be spent during the ensuing

TABLE V
PROJECTS RELATED TO CORPS OF ENGINEERS' RIVERS AND HARBOR
IMPROVEMENT PROJECTS FOR THE FISCAL YEARS 1965 - 1968

District	Buoys	Lights	Day- beacons	Increase in maintenance cost	Cost of changes in AtoN	Per cent of Total Increases
First	57	6	2	\$7,332	135,550	2.3
Second	146	33	5	5,850	31,900	.5
Third	56	8		7,065	212,650	3.6
Fifth	35	37	45	16,900	279,050	4.7
Seventh	5	91	178	16,900	358,100	6.0
Eighth	1,648	64	31	216,634	3,696,750	62.9
Ninth	47	20		12,595	592,980	10.1
Eleventh		6		1,900	50,100	.8
Twelfth				-0-	-0-	-0-
Thirteenth	34	68	2	19,330	366,000	6.2
Fourteenth	20	15	4	8,070	146,400	2.5
Seventeenth		2		200	3,600	.1
Totals	2,048	350	267	\$312,776	\$5,873,080	99.7 ^a

^a Total does not equal 100 per cent due to rounding of some numbers

three years, while the Twelfth District is scheduled to receive no funds for rivers and harbors projects, and the Seventeenth District only \$3,600, which will be used to build 2 lights.

Change in Work-Load for Aids to Navigation Branch Offices. The Chief of each Branch Office was requested to indicate the areas of change in work-load over the past three years. They were given eight areas to choose from and were asked to specify any other areas of increase. Only one district stated that the work-load had remained about the same during the past three years. The results of the questionnaire are tabulated in Table VI Page 30.

Ten districts reported an increase in administration of private aids to navigation, correspondence with Corps of Army Engineers, and correspondence with civilians requesting additional aids to navigation. Nine districts reported an increased work-load in processing Form CG-3213's and planning River and Harbor Projects. Eight districts reported an increased work-load in handling correspondence with the Commandant. Six districts reported an increased work-load for correspondence with military other than Coast Guard. Five districts reported an increase in work-load for preparation and mailing of Local Notice to Mariners, while four districts reported an increase in work-load for handling the reports of marine casualty Form CG-910.

TABLE VI
WORK-LOAD CHANGES IN THE BRANCH OFFICES
DURING THE PERIOD FROM 1963 - 1965

District	Increased Work Load									
	Remained about the same	Correspondence with								
		Administration of Private AtoN	Planning AtoN Projects	Preparation of 5213's	Local Notice and Mailing Reports to Mariners	CG-910 of Marine Casualty Commandant	Army Engineers	Military other than Coast Guard	Civilian Requests for additional AtoN	
First	X	X			X			X		
Second	X					X		X	X ^a	
Third	X	X	X	X	X	X	X	X	X	X ^b
Fifth	X			X	X	X	X	X	X	X ^c
Seventh		X				X	X			X ^d
Eighth	X	X	X	X	X	X	X	X	X	X ^e
Ninth	X	X	X			X		X		
Eleventh	X	X	X		X	X	X	X	X	X ^f
Twelfth	X	X			X	X		X	X	X ^g
Thirteenth	X	X	X	X	X	X	X		X	
Fourteenth	X	X			X	X	X	X	X	X ^h
Seventeenth	X									

^a Management of additional vessels. 1962-14 vessels, 1964-17 vessels, and 1965-20 vessels.

^b State aids, regulatory markers, marine parades and regattas. EAM Data Processing.

^c Dredging projects in C & D Canal, and Chesapeake Bay Bridge Project.

^d Commander Greater Antilles Section.

^e Standardization and conversion of AtoN equipment.

^f Off-shore oil exploration, fleet training, various Navy Oceanographic projects, Scripps projects, fleet weather, private industry experiments.

^g Changes in Aids to Navigation due new equipment and planning toward automation.

^h Foreign government agencies and other government agencies. (U.S.)

Inspection of Aids to Navigation.

The district commander shall require a thorough general inspection of each manned aids to navigation unit or facility at least once each year. Unmanned aids shall be inspected at such intervals as will satisfy the district commander of their proper maintenance and reliable operation. While these inspections may be made by commanding officers or group commanders, the officers of the district commander's staff should participate in the inspection program.¹⁰

Class I and II private aids shall be inspected at least once each year. These inspections may be delegated to district units.¹¹

Group I bridges shall be inspected annually, or more often if necessary. Group II bridges shall be inspected once every three years...¹²

The Chief of each Branch Office was requested to provide an estimate of the number of inspections completed each year by branch office personnel for the following types of aids:

1. Fixed federal aids to navigation
2. Private aids to navigation
3. Bridges

Table VII Page 32 provides a compilation of the results of the inquiry.

The number of aids to navigation annually inspected by the branch office personnel varies from less than twenty-five per cent to seventy-five per cent or more for federal and private aids to navigation, but less than twenty-five

¹⁰United States Coast Guard, Treasury Department, Aids to Navigation Manual. No. CG-222 (Washington: Government Printing Office), p. A-10.

¹¹Ibid., p. A-13.

¹²Ibid., p. A-14.

TABLE VII
YEARLY INSPECTIONS OF AIDS TO NAVIGATION
CONDUCTED BY BRANCH OFFICE PERSONNEL

District	Fixed Federal AtoN	Private AtoN	Bridges
First	0-25%	0-25%	0-25%
Second	0-25%	0-25%	0-25%
Third	25-50%	0-25%	0-25%
Fifth	25-50%	0-25%	0-25%
Seventh	50-75%	25-50%	0-25%
Eighth	0-25%	75-100%	0-25%
Ninth	0-25%	0-25%	0-25%
Eleventh	0-25%	0-25%	0-25%
Twelfth	75-100%	0-25%	0-25%
Thirteenth	25-50%	0-25%	0-25%
Fourteenth	75-100%	0-25%	0-25%
Seventeenth	0-25%	0-25%	0-25%

per cent for bridges in every district. For federal aids to navigation, the Twelfth and Fourteenth Districts inspect seventy-five to one hundred per cent annually; the Seventh District inspects fifty to seventy-five per cent annually; the Third, Fifth, and Thirteenth Districts inspect twenty-five to fifty per cent annually; and the remainder inspect less than twenty-five per cent annually.

For private aids to navigation the Eighth District inspects seventy-five to one hundred per cent annually; the Fifth District inspects twenty-five to fifty per cent annually; and the remainder inspect less than twenty-five per cent annually.

The percentage of aids to navigation inspected annually by branch office personnel is determined by the number of personnel available to conduct these inspections as well as the policy for inspection set by the District Commander. Therefore, in those districts where the District Commander desires a high percentage of aids to navigation inspected annually by branch office personnel, additional personnel will be required for conducting these inspections.

Regardless of who inspects the aids to navigation, records are kept at the branch office. The Branch Chief has to determine if the advantages of having a branch "specialist" conduct the inspection are worth the loss of the "specialist" from the branch office staff during the inspection periods as well as giving consideration to the fact that shifting the inspection burden to the field units

creates more work for these field units.

Liaison with U. S. Army Corps of Engineers. Liaison must be maintained with the Corps of Engineers' Districts that overlap the district boundaries of the U. S. Coast Guard, and each district commander must keep abreast of the River and Harbor Improvements being made in the waterways for which he is responsible for the aids to navigation. Also, as new bridges, docks, or other obstructions are constructed under a permit from the Corps of Engineers, the Coast Guard must be made aware of the developments in order that these structures can be evaluated for obstruction lights. To effectively fulfill these responsibilities, a good working relationship is required between the Chief, Aids to Navigation Branch and the Director, U. S. Army Corps of Engineers.

Table VIII Page 35 provides the number of District Corps of Engineers Offices with which each Coast Guard District maintains liaison. The Second District has the largest number consisting of 15 Corps of Engineers Districts. The Fifth, Seventh, and Ninth Districts maintain liaison with 4 Corps of Engineers Districts, while the Third, Eighth, and Twelfth Districts maintain liaison with 3 Corps of Engineers District Offices. The Fourteenth District maintains liaison with 2, and the First, Eleventh, and Seventeenth Districts maintain liaison with 1 Corps of Engineers District Offices.

TABLE VIII

NUMBER OF U.S. ARMY CORPS OF ENGINEERS DISTRICT OFFICES
WITH WHICH COAST GUARD MAINTAINS LIAISON

District	Number
First	1
Second	15
Third	3
Fifth	4
Seventh	4
Eighth	3
Ninth	4
Eleventh	1
Twelfth	3
Thirteenth	4
Fourteenth	2
Seventeenth	1

Personnel Allowance. The following statistics about personnel assigned to each district Aids to Navigation Branch Office were obtained from questionnaires sent to each district. Table IX Page 37 provides a compilation of these statistics. Under each rank or rating a percentage is given which represents the amount of time the position was not filled during the past three years. This percentage applies to a position only after it was authorized.

For purposes of comparison, the officers, hydrographers, and civilians of GS-rating of 9 or above are listed separately, while all clerks and yeomen are grouped together. Supervisory personnel (Officers and civilians GS-9 and above) vary from one for the Eleventh District to six for the Eighth District. Six districts have three supervisors, two have four, one has five, and one has two. The clerks vary from one to five.

The total number of personnel in 1965 per office varies from three in the Eleventh District to eleven in the Eighth District. By 1968 the Eighth District is expecting to have eighteen personnel in the Branch Office.

During the past three years nine positions have been added to the branch offices with a total of 85 assigned to all branch offices in 1965. According to estimates of the branch chiefs, 101 positions will be required by 1968, for an increase of sixteen or approximately five per year.

The position of the Branch Chief of the Third District has been vacant 30 per cent of the past three years, while

PERSONNEL ALLOWANCES FOR AIDS TO NAVIGATION
DISTRICT BRANCH OFFICES-BASE YEAR 1965

TABLE IX

District	Branch Chief	Asst Branch Chief	Officer or above GS-9	Officer or above GS-9	Officer or above GS-9	Officer or above GS-9	QMC, QM1, QM2, Hydrographer	Clerks or IN's (Total)	Increase in personnel last 3 years	Expected increase in personnel next 3 years	Total Number Personnel	Total expected by 1968
First	Capt 0	Cdr Ltjg 10% 0					QM1	5	2	0	9	9
Second	Cdr 0	Ltjg GS-9 0.5% 1%					QM2 1%	3	0	0	7	7
Third	Capt 30%	LCdr Ltjg 5% 5%	GS-11 0				QM1	5	0	1	10	11
Fifth	Cdr 0	LCdr GS-9 11.2% 0					QMC 0	5	1	0	9	9
Seventh	Cdr 0	LCdr GS-11 20% 0					QMC 0	3	1	2	7	9
Eighth	Capt 0	Cdr Lt Ltjg GS-9 0 0	CHBOSN 0				QMC 0	4	3	7	11	18
Ninth	Capt 0	LCdr Lt Ltjg GS-9 15% 0						2	0	0	7	7
Eleventh	Cdr 0						QMC 10%	1	1	2	3	5
Twelfth	Cdr 9%	Lt. GS-11 7% 0					QMC 0	2	0	0	6	6
Thirteenth	Cdr 1%	Lt GS-9 0 0					QMC 0	2	0	1	6	7
Fourteenth	Capt 0	LCdr Lt Ltjg 0 75% 0					QM1 0	1	1	3	6	9
Seventeenth	Cdr 18%	Lt 2%					QMCM 0	1	0	0	4	4
Total								9	16	85	101	

Note: The percentage under each rank or rating represents the amount of time the position was unfilled during the past three years.

the position of the Assistant Branch Chief of the Seventh District has been vacant for 20 per cent of the last three years. The position of Electronics Section Chief of the Fourteenth District has been vacant 75 per cent of the past three years. The position of Branch Chief of the Seventeenth District has been vacant 18 per cent of the last three years, while the position of Assistant Branch Chief of the Ninth District has been vacant 15 per cent of the last three years. The remaining supervisor positions have had less than 12 per cent vacancies during the past three years.

Division of Work for Individual Positions. To obtain a distribution of work for the supervisors in each Aids to Navigation Branch Office, a questionnaire was completed for each civilian with a rating of GS-9 or above and for each officer. The results of the questionnaires are tabulated in Table X Page 39 which provides the division of work for each supervisor based upon a full week. From this data a division of work is obtained for each office, and the division of work for all district offices has been averaged to obtain a standard for the overall Coast Guard Aids to Navigation Branch Offices.

The division of work for all supervisors in an office was averaged to obtain the division in one office, since the number of supervisors varies from two to five and the division of functions for individuals varies in different branch offices.

TABLE X

District Position	HOURS PER WEEK										DAYS PER YEAR			
	CORRESPONDENCE										TAD			
	Civilians	C.O. Commandant	C.O. Other	Corps of Engineers	Artillery(Other)	District Staff	Other	Court Martials, Boards Not Related to Atoll	Staff Conferences, Planning, Staff Duties	Preparation of Local Notice to Weather	Other	Leave-Annual	Inspection of Atoll	Other Coast Guard
First Branch Chief	6	4	8	1	1	4	1	2	8	1	4 ^a	30	20	5
Asst. Branch Chief	7	4	7	2	1	4	2	1	12	4	12 ^b	30	20	5
Asst. (Ltjg)	4	1	6	1	2				12	4		30	20	5
Branch Av.	5.6	3	7	1.3	.6	3.3	1.6	1	10.6	1.6	5.3	30	20	5
Second Branch Chief	10	2	10	4	1	2	3	3	4	1		30	38	2
Asst. Branch Chief	3	3	7	4	1	10	2	2	1	3	3 ^c	30	15	5
GS-9	10	4	4	2	2			1	18	2		26	30	
Branch Av.	7.6	1.6	7	3.3	.6	4.6	.6	1.6	1.5	8.5	1.5	1	28.6	27.5
Third Branch Chief	8	4	1	4	1	7	6.5	2	8	1	.5	24	12	12
Asst. Branch Chief	6	3	1	3	1	6	6.5	2	16	1	.5	7	12	12
Asst. (Ltjg)	6	2	6	1	1	5	3	8	1	6	1	30	60	14
GS-11	9	3	7	7	4	2	2	1	3	2		23	9	3
Branch Av.	7.2	3	3.8	1.7	5	1.2	5.2	1.5	8.2	1.2	.2	21	22.2	10.2
Fifth Branch Chief	3	2	2	4	1	10	2	8	3	2	3 ^d	20	30	30
Asst. Branch Chief	10	2	3	4	1	6	4	5	3	2		30	15	15
GS-9	3	4	4	6	2	8		1	11	1		38	10	
Branch Av.	5.5	2.6	3	4.6	1.3	8	2	4.6	5.6	1.6	1	29.3	18.3	15
Seventh Branch Chief	6	4	2	2	1	4	2	1	3	8	1	6	30	25
Asst. Branch Chief	16	8	8	4	4		2	2	2	4	4	30	45	5
GS-11	4	2	2	10	2	2			14	4		26	60	
Branch Av.	8.6	2	4	4	2.3	2	.6	1	1	8	3	3.3	28.5	43.3
Eighth Branch Chief	10	3	2	3	6	6	1		2	6	1	15	40	40
Asst. Branch Chief	2	3	5	3	2	3	.5	.5	16.5	.5	4 ^e	15	45	
Asst. (Ltjg)	1	10	1		7		1				18 ^f	30	25	5
Asst. (CHROSN)	30	5								5		30	160	
GS-9	1	3	3	3	1	1	1	1	10	10	14	25	10	5
Branch Av.	8.8	2.2	4	1.4	1.6	3.2	.4	.3	7	6.5	4.3	7.2	23	56

TABLE X

District Position	HOURS PER WEEK										DAYS PER YEAR				
	CORRESPONDENCE										Leave-Annual	Inspection of Aton	Other Coast Guard	T&D	
	C.C. Commandant	C.C. Other	Corps of Engineers	Military (Other)	District Staff	Other	Court Martials, Boards Not Related to Aton	Staff Conferences, Meetings, Staff Duties	Planning-Preparing 3213's	Notice to Mariner					
Ninth															
Branch Chief	5	3	4	1	1	4	4	2	6	1	68	30	18	10	
Asst. Branch Chief	8	2	6	1	4	3	4	1	7	1		30	20	5	
Asst. (Lt)	8	2	4	8	1	4		1	8			30	30	5	
Asst. (Ltjg)	5	1	5	6	1	6	4		10	2		30	30	5	
GS-9	3	3	2	4	1				25			10			
Branch Av.	6.2	2.2	3.4	5.6	1	3	1.4	3.2	.8	6.2	5.8	1.2	26	19.6	5
Eleventh															
Branch Chief	20	4	1	4	4	.5	1	.5	1	6	27	4	10		
GS-7n	1	1	1	1	1	1	2		8	24	26				
Branch Av.	10.5	2.5	1	2.5	.7	1	.5	.3	.5	7	12	26.5	2	5	
Twelfth															
Branch Chief	6	1	10	1	1	4	2	8	4	1	2 ^h	28	25	10	
Asst. Branch Chief	6	2	8	1	1	4	1	3	1	6	3	41	28	20	
GS-11	8	3	8	1	1	4	2	8	3	2 ^j	26	13	17		
Branch Av.	6.6	2	8.6	1	1	4	.3	1.6	3.6	6	2.3	2.6	27	17	9
Thirteenth															
Branch Chief	7	5	5	5	1	7	1	1	3	3	2	30	30	10	
Asst. Branch Chief	7	2	12	3	1	5	.5	.5	7	2		25	15	5	
GS-9	5	5	5	10				14.5	.5			30	10	5	
Branch Av.	6.3	4	7.3	6	.6	4	.3	.4	1.1	8.2	1.5	28.5	18.3	6.6	
Fourteenth															
Branch Chief	3.8	9	10	4	3	2	.5	.5	5	2	.2	30	42		
Asst. Branch Chief	4	10	10	4	3	5	1	.5	1	2	1	30	15	6	
Asst. (Lt)	1	2	16	2	8		1		8	2	4	18	104		
Asst. (Ltjg)	3	5	7.5	2	4	6	1	5	11	.5		10	20	2	
Branch Av.	3	6.5	10.9	2.5	3	5.2	.6	1.7	1.5	5.7	.8	1.2	22	45.2	2
Seventeenth															
Branch Chief	1	1	3	.5	1	1	.5	5	7.5	5	1	111	30	45	15
Asst. Branch Chief	2	1	5	1	1	3	1	1	10	3	8.5 ^m	30	15	25	
Branch Av.	1.5	1	4	1.3	1	2	1.3	3	4.3	7.5	2	9.7	30	30	20
Av. of all branch Offices	6.4	2.6	5.3	3.1	1.4	3.7	.6	1.8	1.8	6.8	2.7	3.7	24.5	26.6	7.7

TABLE X (continued)

- a Miscellaneous: Personnel and office administration.
- b Review of routine reports and correspondence, routine administration of office, review and revision of allowance list, CG-2814's, directives, etc.
- c Wrecks, destroyed aids
- d Chairman, Real Property Survey Board
- e Telephone conversations in connection with the rest of the topics
- f Issuance of tender orders, wreck markings, etc.
- g General Supervision
- h Inspection of equipment and units
- i RCC Controller (alternate)
- j Field trips to CG Base, AtoN units and planning and locating of new aids to navigation
- k Personnel
- l Research, staff studies, review various reports, coordinate with (ecv) on projects, with (osr) on vessel movements and schedules, with (f) on unit logistics, with (eee) on radio beacons and LORAN, with buoy depot (CG Base, Ketchikan), etc.
- m Research, staff studies, prepare and review various reports, coordinate with (ecv) on projects, with (osr) on vessel movements and schedules, with (f) on unit logistics, with (eee) on radio beacon and LORAN, with depot (CG Base, Ketchikan), etc.
- n The position of GS-7 was used since this is the second senior position in the Branch Office.

The division of work, leave, and temporary duty was requested on a yearly basis to determine the amount of productive days per man per year. As for above, the averages were determined for each office and for the overall Coast Guard Branch Offices. The average number of days annual leave taken each year is 24.5 and the average number of days TAD for other Coast Guard duties not benefiting the Aids to Navigation Branch Office is 7.7. Using 260 days as the number of work days per year, less 8 days for holidays, less leave and TAD not pertaining to the Aids to Navigation Branch Office, only 220 productive days can be expected from each new supervisor obtained. In addition, an average of 26.6 days were used for inspection of aids to navigation by each supervisor. This time must be subtracted from productive office time, leaving an average of only 193 days per year for office work. However, some additional days can be gained by requiring, where possible, that the travel time for inspections be conducted on weekends.

The largest amount of time spent on one subject area per week was 6.8 hours for preparation of Aids to Navigation Operation Request Form CG-3213, planning work for the aids to navigation units, and planning aids to navigation for river and harbor projects. This use of time is to be expected since managing and planning should require a large part of a supervisor's time.

Another subject area was correspondence with civilians with 6.4 hours per week, or second in rank order. As was

shown in Table VI Page 30, ten districts reported that the correspondence with civilians requesting additional aids to navigation had increased in the last three years, which may account for part of this use of time. Also, in those districts with large numbers of private aids to navigation, correspondence with the owners of the aids would require additional time.

Correspondence with the Commandant rates third with 5.3 hours per week per office, and correspondence with the district staff requires 3.7 hours per week.

An average of 1.8 hours per week per supervisor is lost from production of the branch by time required for court martials, boards, or other duties not related to aids to navigation duties. By removing the civilian supervisors from the average, the number of hours lost increases to 2.5 hours per week.

Organization of the Aids to Navigation Branch Offices.
The chief of each branch office was requested to provide a copy of his branch organization chart, or if one was not available, a position description of the military and civilian personnel assigned to the branch office. Organization charts were returned for all but three districts. For the Fifth and Seventh Districts an organization chart was developed by the investigator from the position descriptions supplied. The Seventeenth District did not provide a position description or organization chart, and the investigator

developed the chart by using the personnel allowance as a basis.

The purpose of an organization chart is to graphically portray the organization of the branch office. A chart is useful to portray the organization to new personnel reporting to the office and to provide all personnel with a clear understanding of the chain of command. Frequently in preparing or reviewing a chart, deficiencies are revealed and possibilities for improvement are made apparent. The existence of an organization chart does not insure a good organization for the branch office, but it is a good tool to assist in understanding the relationships that exist in the office.

It is incumbent upon managers to recognize and utilize informal organization constructively. Regardless of the type of formal organization that is provided for the flow of authority, and the staff and line relationships established in the organization, working and social conditions will eventually develop an informal organization. With the small size of most of the branch offices, this informal relationship becomes very important and constructive use of the relationship can be developed to improve the productivity of the office.

There is considerable variance between the organizations of the branch offices. Both staff and line relationships exist in some districts. The functions of the line are those which have direct responsibility for accomplishing the

objectives of the organization. The line supervisor must realize that in his position of manager, advice may be given to him, but he must make the decisions. The staff elements of the branch help the line to work more effectively in accomplishing the objectives of the aids to navigation branch. Recent trends in management theory allow for more line responsibility to be absorbed by staff personnel. This is especially true in small offices. If the line personnel are not present and a decision is required, the staff personnel are encouraged to make decisions thereby increasing the efficiency of the organization.

In three branch offices the line of authority divides directly below the chief of the branch with the assistant chief of the branch and the aids to navigation specialist reporting directly to the branch chief. In five branch offices the line of authority divides below the assistant chief of the branch with the span of control ranging from two to four people or sections reporting to the assistant chief of the branch. The other four branch offices have different organizations ranging from an informal type of organization to an organization that goes three deep before a division of the line of authority exists.

The aids to navigation organization charts for each district are presented as Figures 3 through 14, Pages 51 to 62.

The First District Branch Office organization utilizes a single line of authority from the Branch Chief to the

Assistant Branch Chief. A division of authority is then made with an Operations and Records Section forming one side and the Administration Section forming the other. The line of authority in each section is single with four positions under the Operations and Records Section, and three positions under the Administration Section.

The Second District Branch Office organization appears to be in violation of one of the "Ten Commandments of Good Organization," prepared by the American Management Association, stating:

No executive or employee, occupying a single position in the organization, should be subject to definite orders from more than one source.

The Branch Chief has six members on his staff each of which report directly to him, but all positions except the Aids to Navigation Specialist and the Assistant Chief of the Branch also report to someone else besides the Branch Chief. It is recognized that conditions at times necessitate violation of the above American Management Association precept. This was mentioned to alert management to the difficulties of serving more than one master successfully. For example, the GS-6 Clerk Typing Position reports to the Branch Chief, the Assistant Branch Chief, and the Quartermaster. The Aids to Navigation Specialist GS-9 is in a staff relationship and has no other positions reporting to him.

In the Third District Branch Office the line of authority divides directly below the Branch Chief with one line of authority passing to the Assistant Chief, and the other

passing to the Aids to Navigation Specialist GS-11. The line of authority from the Assistant Branch Chief passes to an inspection officer, then it divides into two lines of authority with two Quartermasters reporting to the Inspection Officer. The Aids to Navigation Specialist has three Clerk Typists and a Hydrographer reporting directly to him providing a span of control of four positions. The division of line of authority directly below the Branch Chief is typical of the branches that have a GS-11 as Aids to Navigation Specialist.

In the Fifth District Branch Office a single line of authority is utilized from the Branch Chief to the Assistant Branch Chief with a three-way division of authority below the Assistant Branch Chief passing to the Statistical Data Clerk, the Plans and Projects Supervisor, and the Hydrographer. The Plans and Projects Supervisor has a Yeoman and Clerk reporting directly to him as assistants. The Hydrographer has an assistant working for him and the Branch Chief has a Secretary assigned to himself. In this organization the Assistant Branch Chief acts as the Screening and Reviewing Officer for the Branch Chief.

The Seventh District Branch Office line of authority divides below the Branch Chief with one line of authority passing to the Assistant Branch Chief and the other to the Technical Assistant GS-11. No position reports to the Assistant Branch Chief. The line of authority divides below the Technical Assistant with a Hydrographer and a Clerk GS-5

reporting directly to the Technical Assistant. The Clerk GS-5 supervises two Clerk Typists.

In the Eighth District Branch Office the line of authority separates below the Branch Chief into four sections with a single line of authority in each section. The Chief of the Hydrographic Section acts as Branch Chief in the absence of the Branch Chief and has cognizance over all activities of the Branch Office. The position description indicates that the Chief of the Hydrographic Section has cognizance over all activities indicating a knowledge of the other sections' activities; but the organization chart indicates a line of authority from the Hydrographer to the Operations Section, then to the Administration Section. Moreover, this provides two lines of authority for the Operations and Administration Sections, but a single line of authority from the Private Aids to Navigation Section to the Branch Chief. From the position descriptions, it cannot be determined if the Chief of the Hydrographic Section reviews the work of the Operations and Administration Section prior to receipt by the Branch Chief.

The Ninth District Branch Office utilizes a single line of authority from the Branch Chief to the Assistant Branch Chief and then divides into three sections below the Assistant Branch Chief. The Operations Section and Planning Section have only one Officer each, while the Publication and Planning Section, a GS-9, has a Clerk Typist reporting to him. The Branch Chief has a Secretary working directly

for him.

The Eleventh District Branch Office has the fewest staff members of any district, with only two to assist the Branch Chief. The line of authority divides below the Chief, and both the Quartermaster and the Administrative Aid, GS-7, report directly to the Branch Chief.

The Twelfth District divides the line of authority below the Branch Chief with one line passing to the Executive Section and the other passing to the Administrative Section. The Chief of the Executive Section, a Lieutenant, acts as the Chief of the Branch in the absence of the Branch Chief. In addition, the Aids to Navigation Instructor reports to the Chief of the Executive Section. The Administrative Section Chief, a GS-11, has a Hydrographer and a Clerk Typist reporting to him.

In the Thirteenth District a single line of authority passes from the Branch Chief to the Assistant Branch Chief, to the Administrative Aid, a GS-9, and then it divides with a Quartermaster and Clerk reporting directly to the Administrative Aid. A Secretary works for the Assistant Chief and the Branch Chief.

The Fourteenth District Branch Office used a single line of authority from the Branch Chief to the Assistant Branch Chief, then divides into four lines with three sections and a Yeoman reporting to the Assistant Branch Chief. Since there is only one person in each section, the Assistant Branch Chief reviews all work prior to passing it to the

Branch Chief.

Since the Seventeenth District did not return an organization chart or position descriptions, only a guess can be made as to the formal organization of the office. The staff is composed of a Branch Chief, a Commander, an Assistant Branch Chief, a Lieutenant, an Administrative Assistant, a Chief Quartermaster, and a Yeoman.

After reading the position descriptions and talking to the branch chiefs, it is readily apparent why the branches with a technical assistant or aids to navigation specialists with GS-11, have these men reporting directly to the Chief. In many instances the Assistant Chief is a training position for the first few months for each new officer, while the civilian technical assistants have been in aids to navigation work for many years. These civilians are invaluable in contributing continuity, advice and training for new officers reporting to the branch. Also, by having the Clerical Staff report to the civilian assistant they experience fewer changes in methods, and procedures for conducting the routine of the office when officers are transferred.

FIGURE 3

FIRST COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART

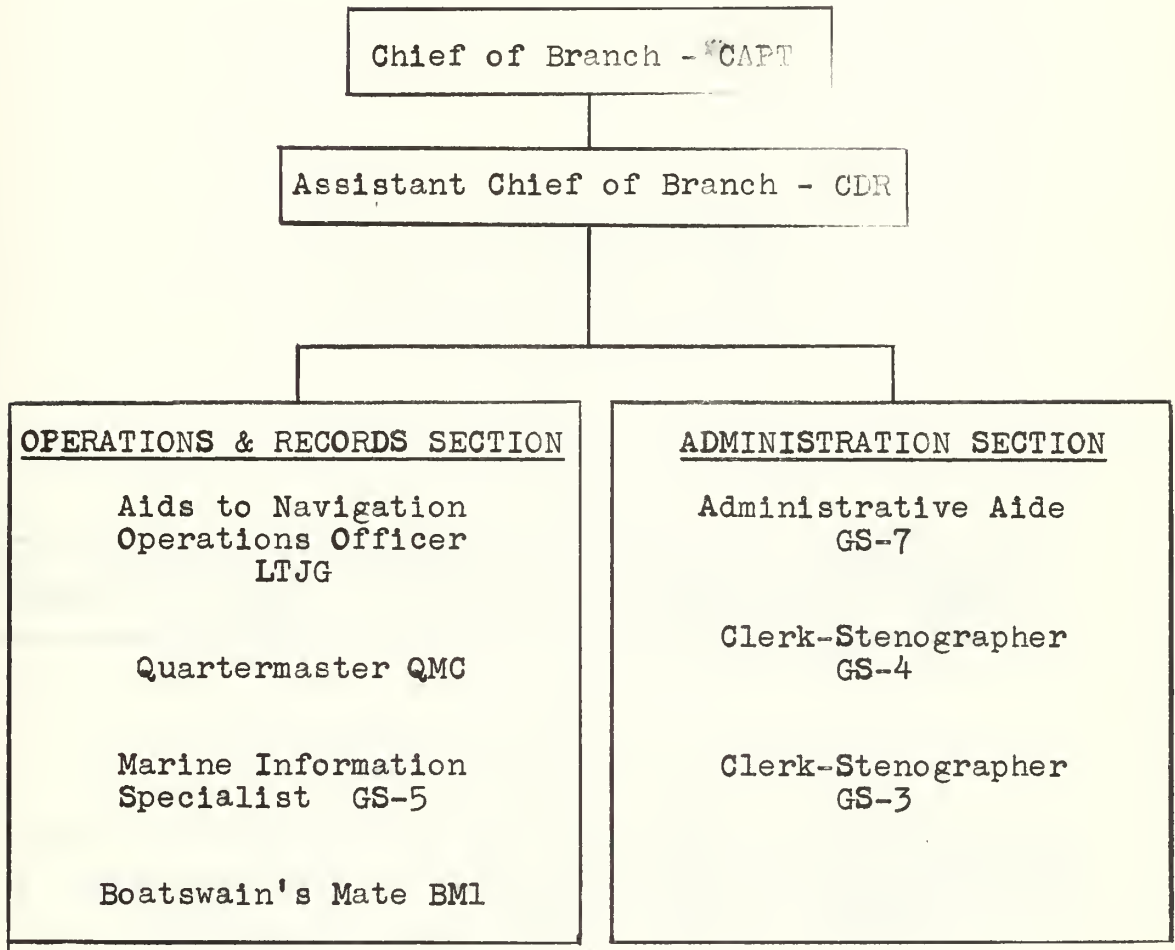


FIGURE 4

SECOND COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART

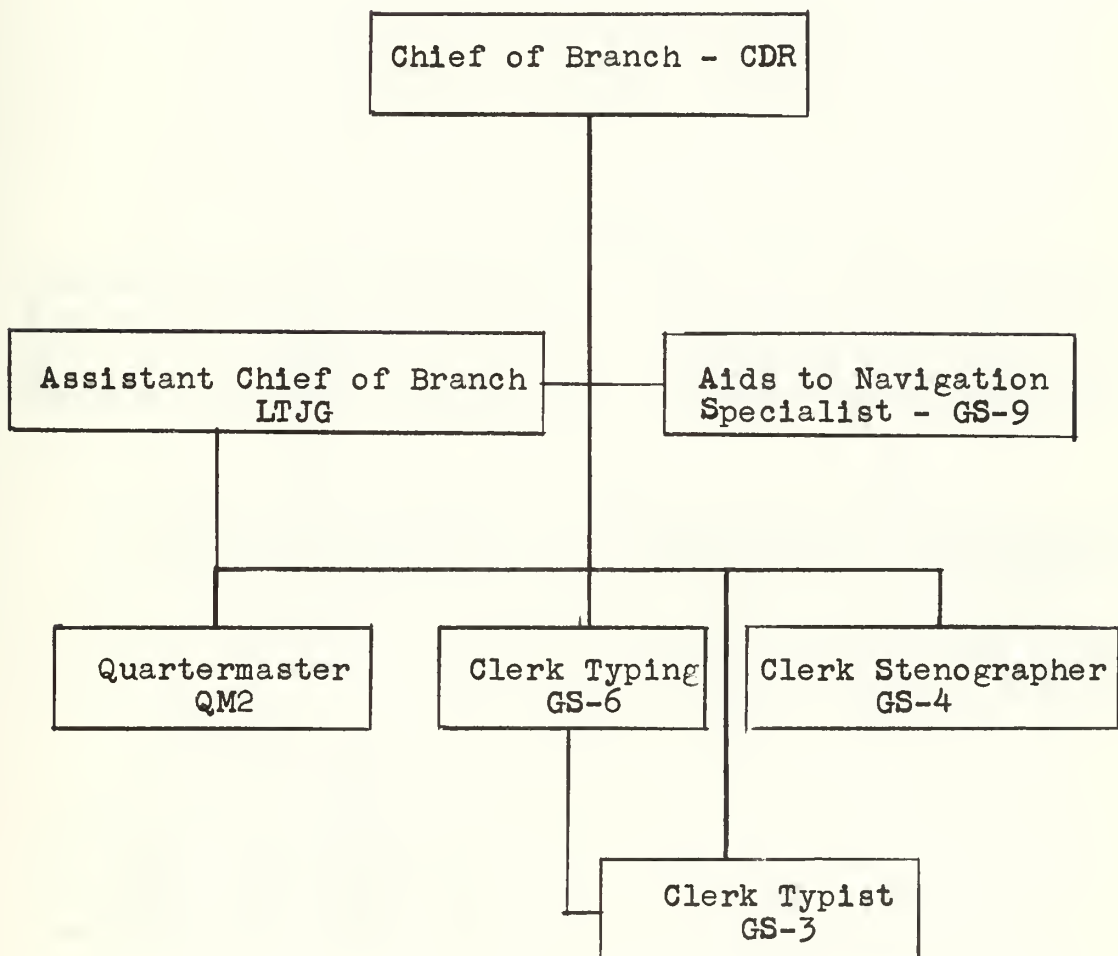


FIGURE 5

THIRD COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART

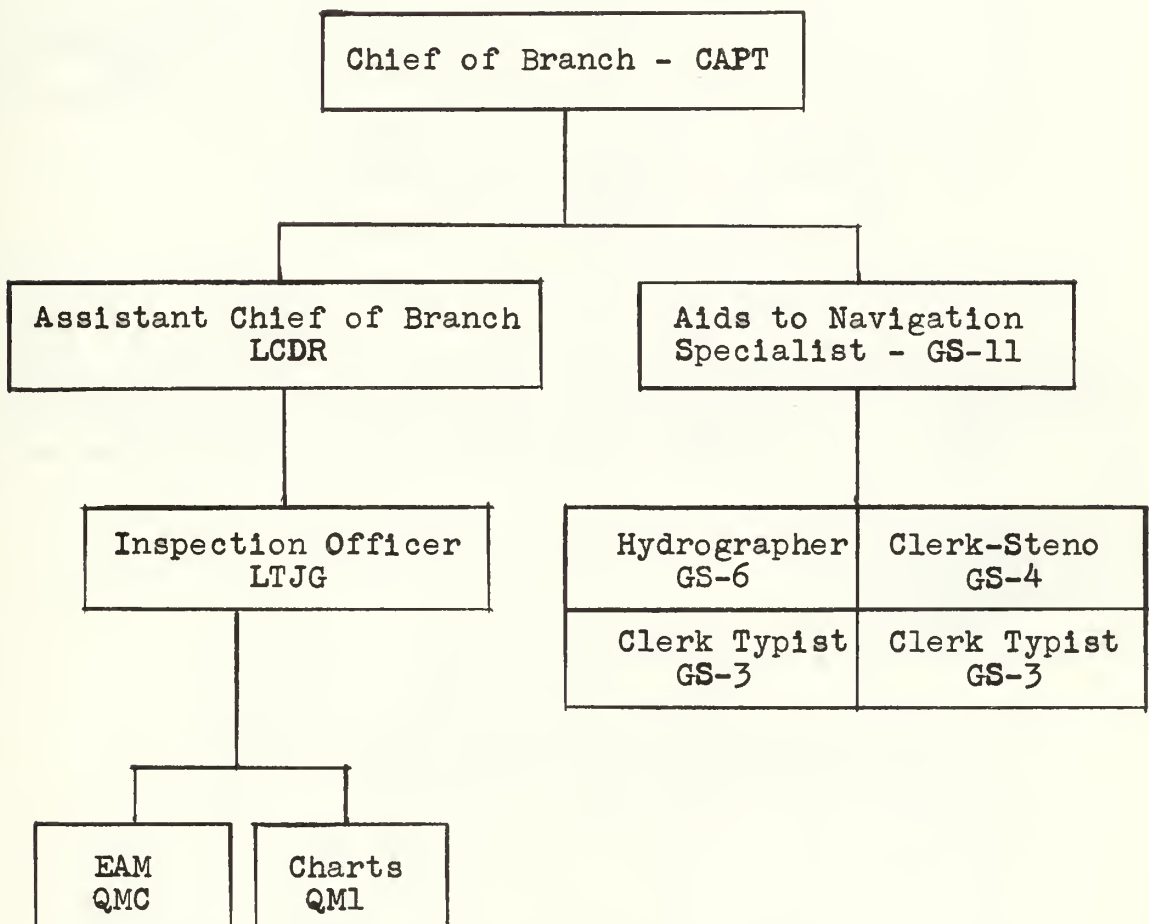
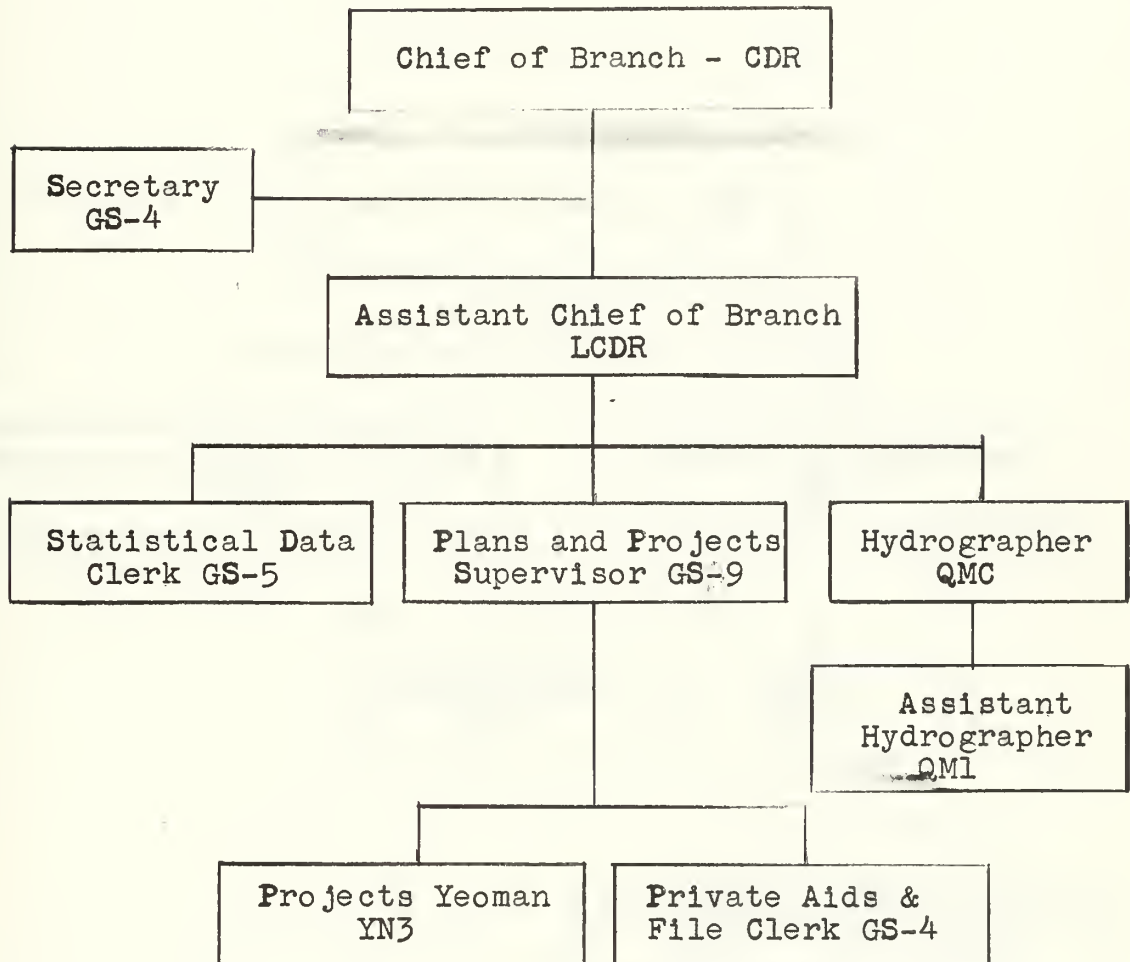


FIGURE 6

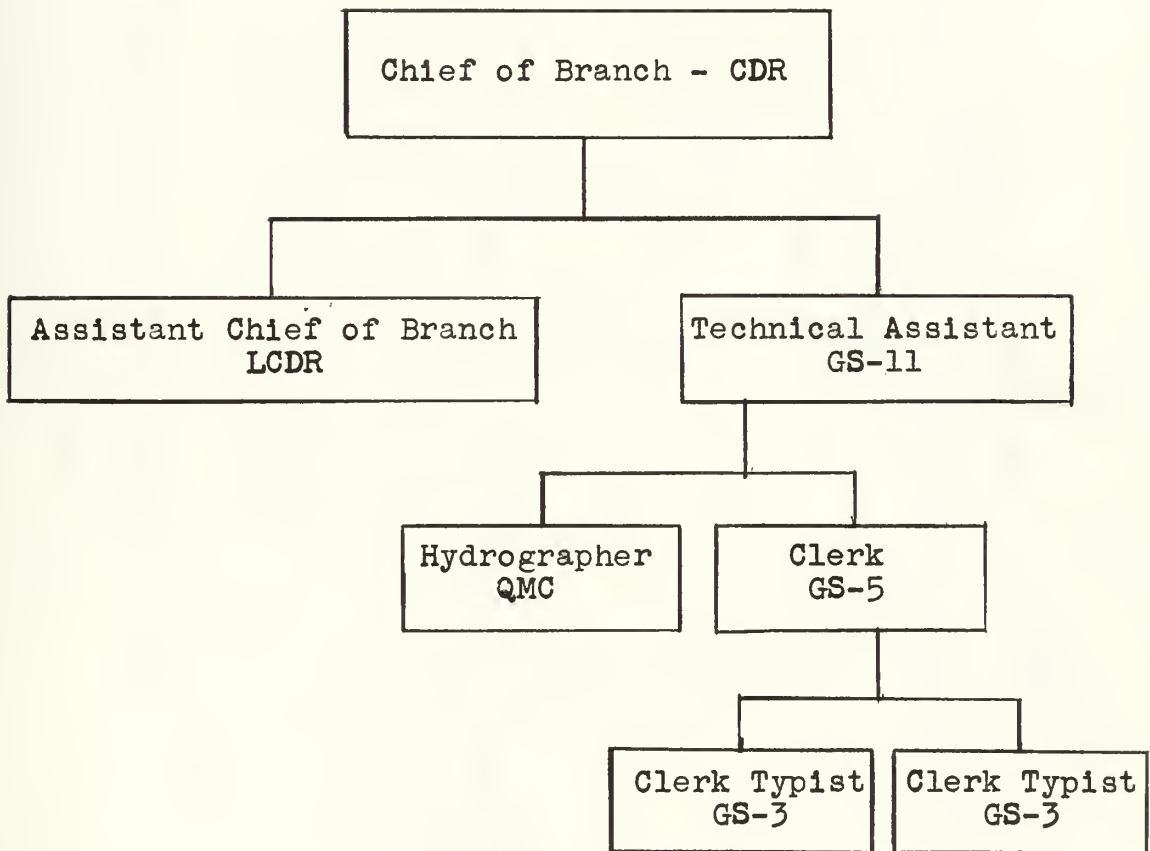
FIFTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART*



*No Organization Chart was returned with the questionnaire and the above chart was derived from Position Descriptions.

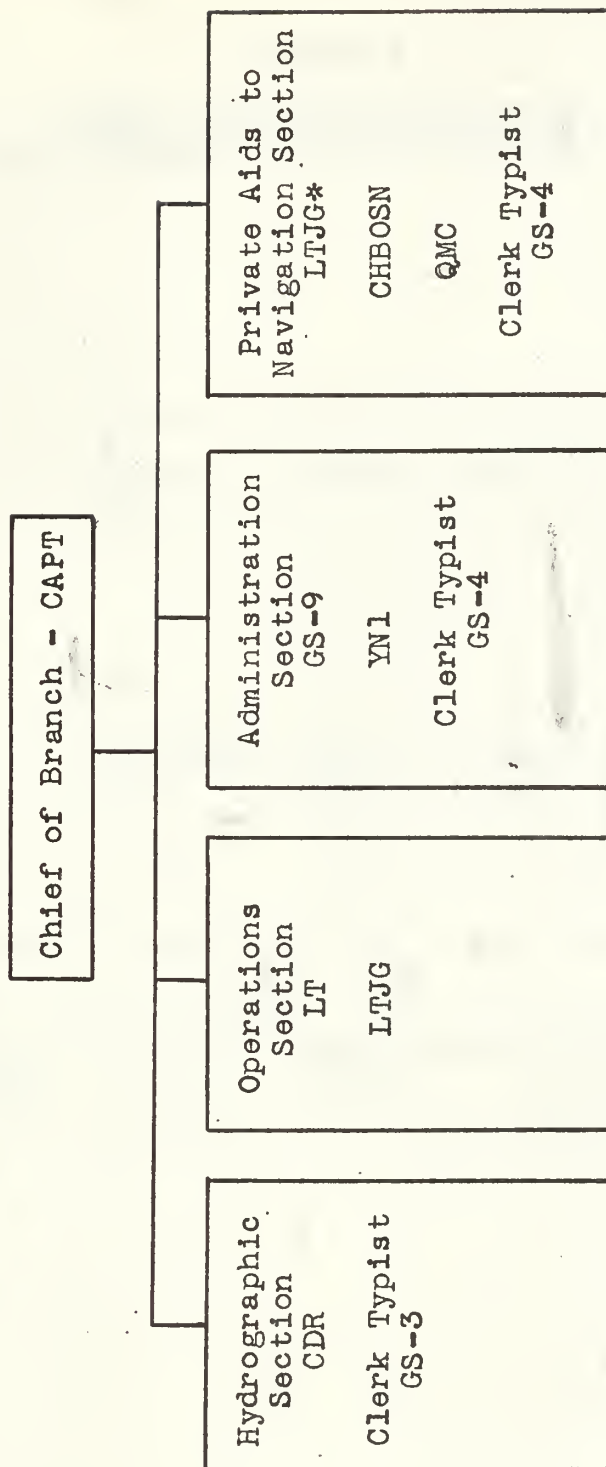
FIGURE 7

SEVENTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART*



* No Organization Chart was returned with the questionnaire. The above chart was derived from Position Descriptions.

EIGHTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART



*This position has not been filled for the past three years.
The CHBOSN is in charge of the Private Aids to Navigation Section.

FIGURE 9

NINTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART

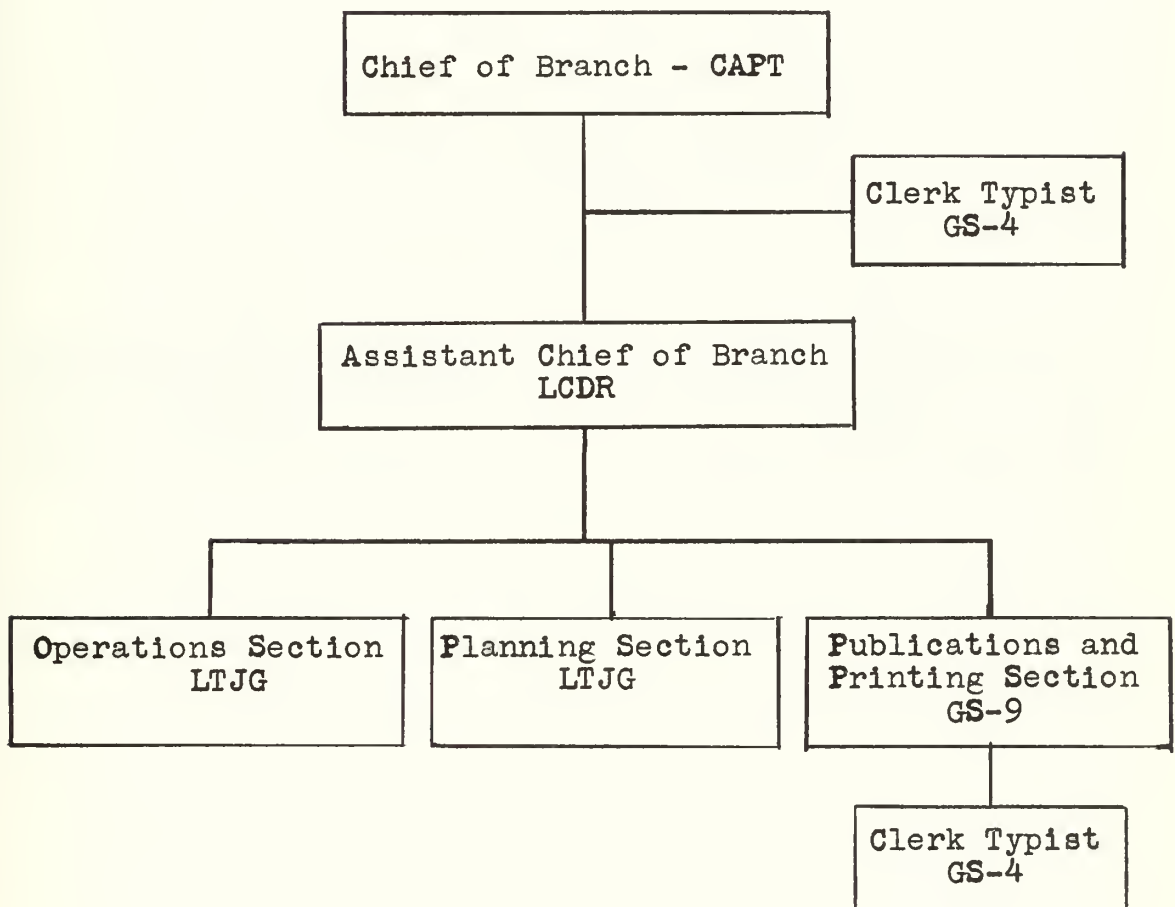


FIGURE 10

ELEVENTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART

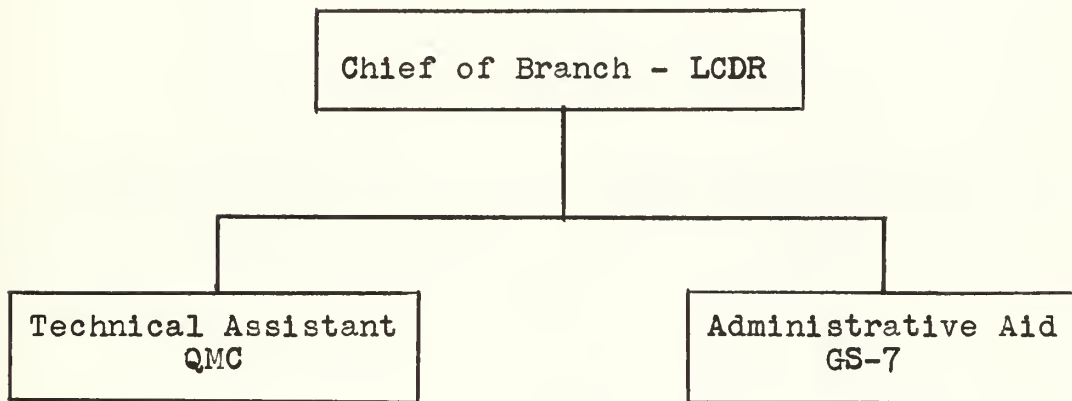


FIGURE 11

TWELFTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART

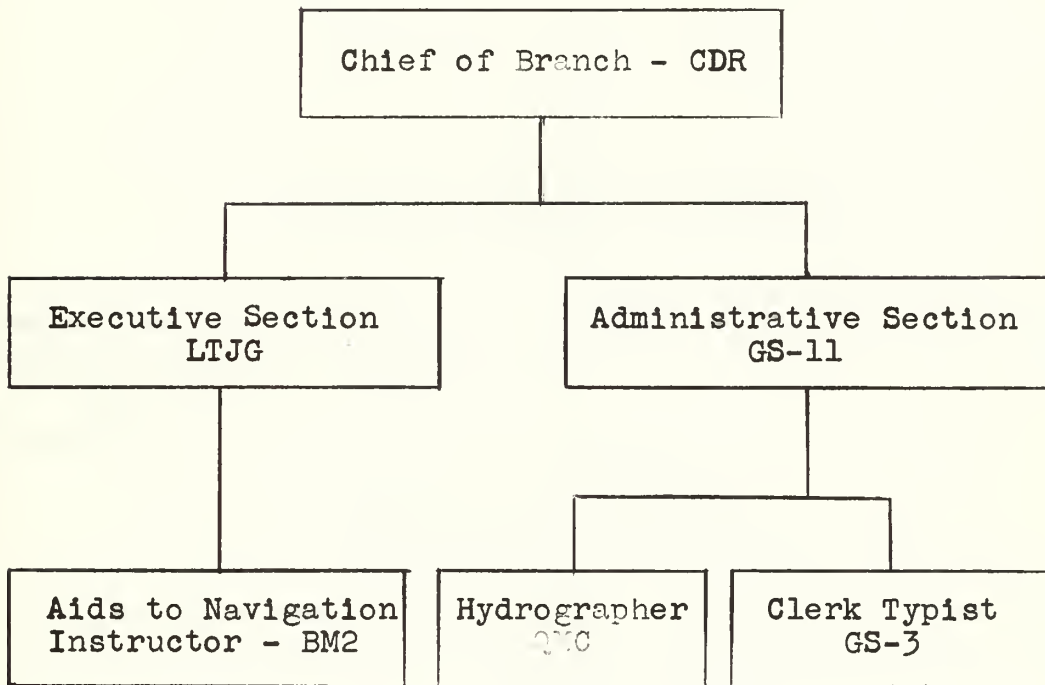


FIGURE 12

THIRTEENTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART

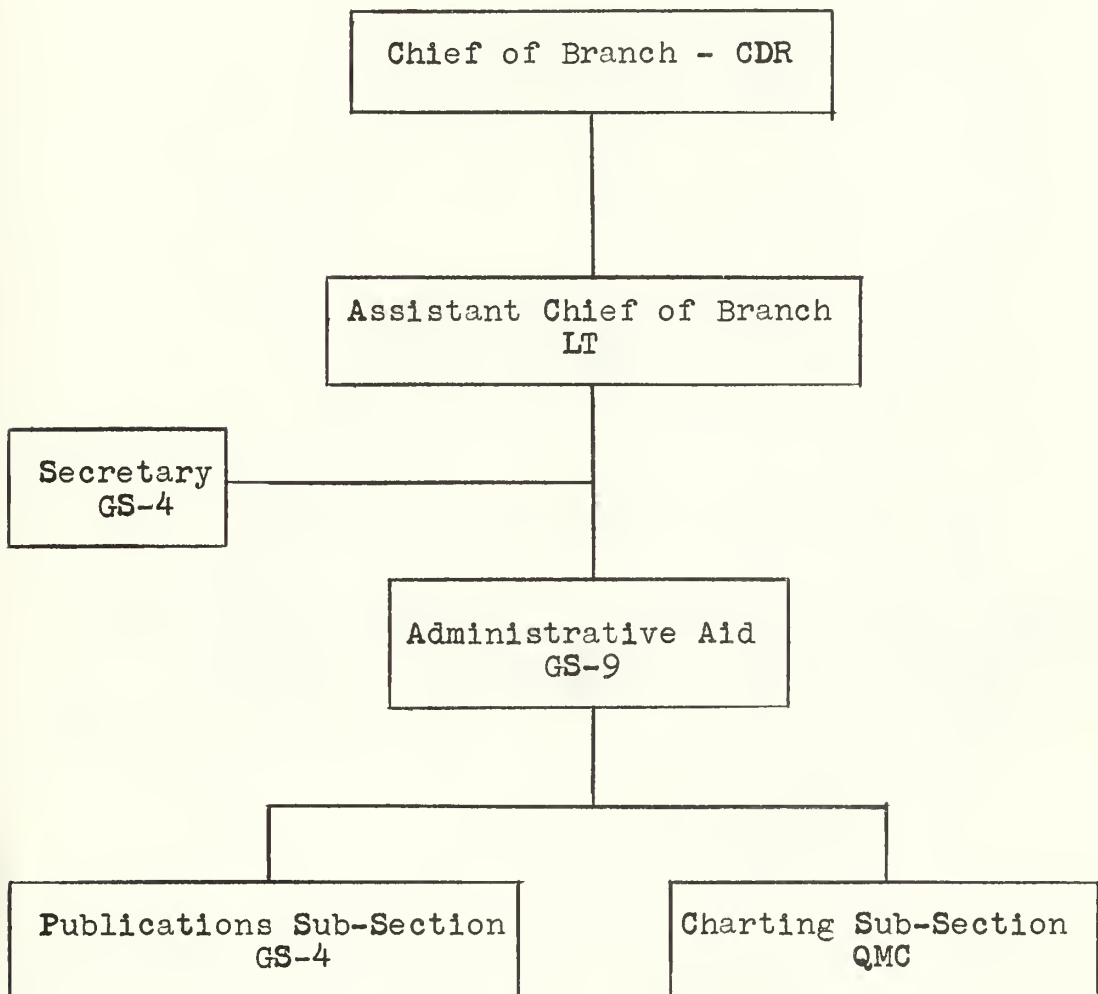




FIGURE 13

FOURTEENTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH ORGANIZATION CHART

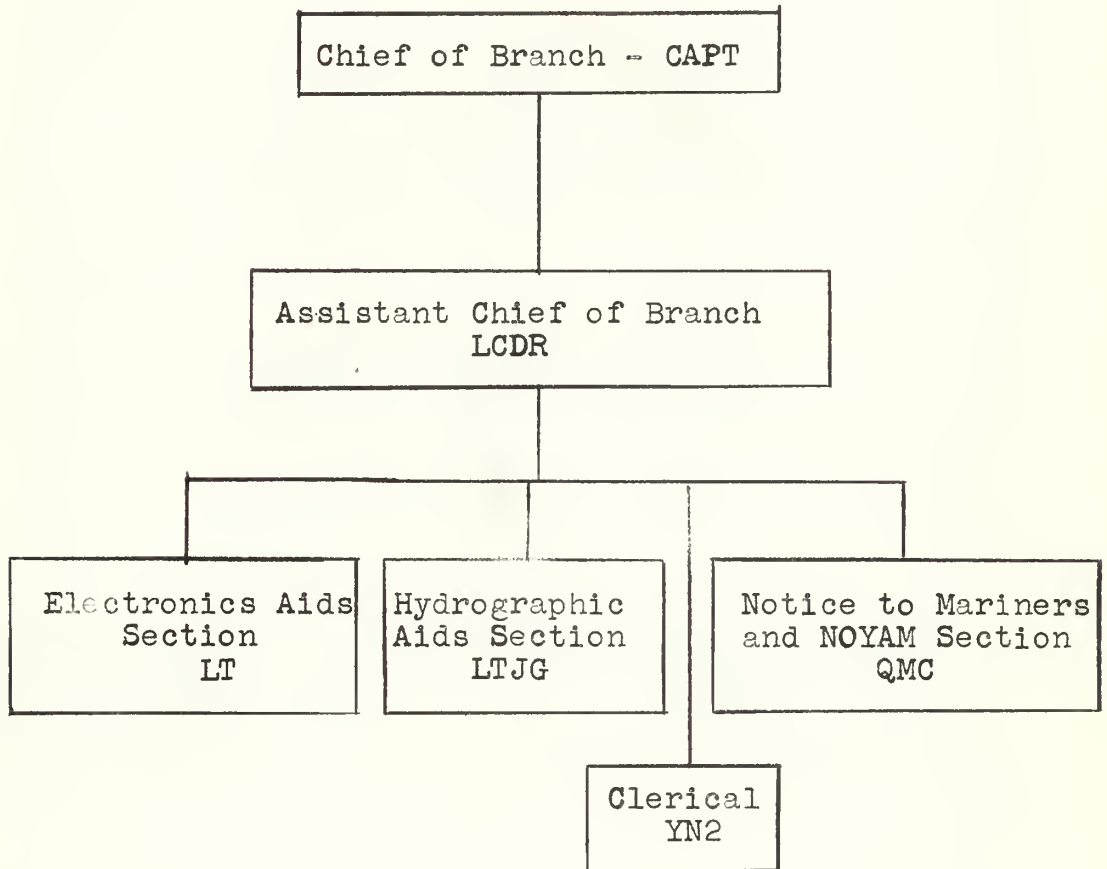
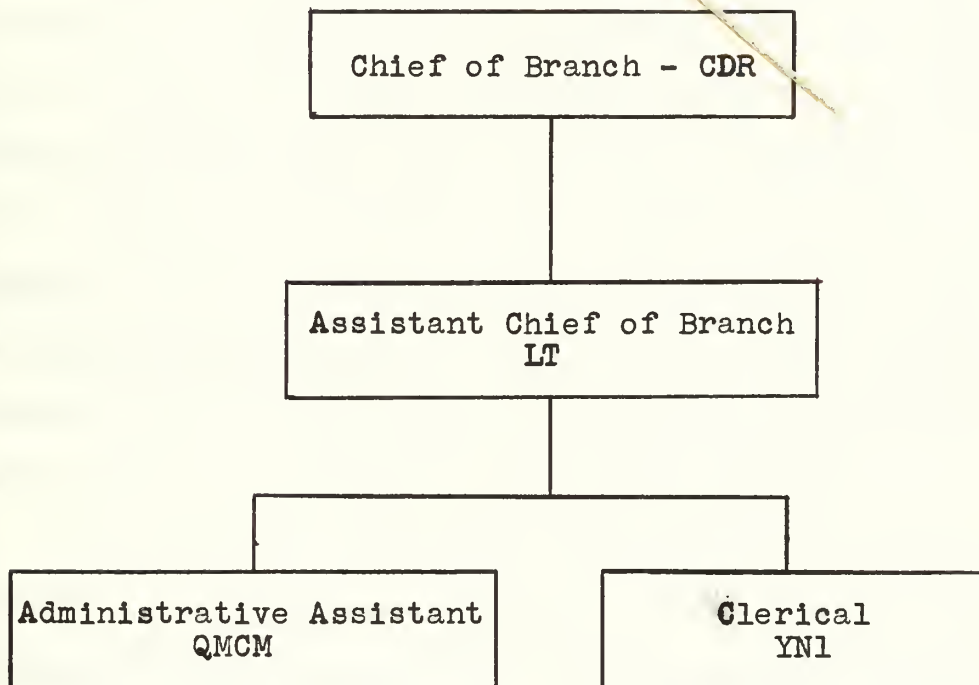


FIGURE 14

SEVENTEENTH COAST GUARD DISTRICT
AIDS TO NAVIGATION BRANCH OFFICE ORGANIZATION*



*No Organization Chart was returned with the questionnaire. No descriptions of positions was furnished. This Organization is the interpretation of the investigator.

CHAPTER V

ANALYSIS AND CONCLUSIONS

Analysis. To assist in conducting an analysis of the personnel allowances, the relationship between the number of personnel assigned to each branch office, the number of aids to navigation, and manned units with aids to navigation responsibilities have been plotted on a rectangular coordinate system. The resulting set of points is called a scatter diagram. On each scatter diagram the investigator has fitted an approximating curve. This is done by visual inspection whereby a smooth curve approximating the data is drawn free-hand through the points of the scatter diagram.

For purposes of analysis, this approximating curve will be used to represent the average or normal number of staff personnel that a branch office should have for the various numbers of aids to navigation and manned units with aids to navigation responsibilities. By using forecasted requirements an analysis of future personnel allowances will be made.

A point to the left of the approximating curve represents a district branch office that is under-staffed, in relation to the normal or average number of staff personnel for that particular number of aids to navigation listed on the vertical axis. Conversely, when a point falls to the right of the approximating curve, that district branch office is over-staffed in relation to the normal or average number of staff

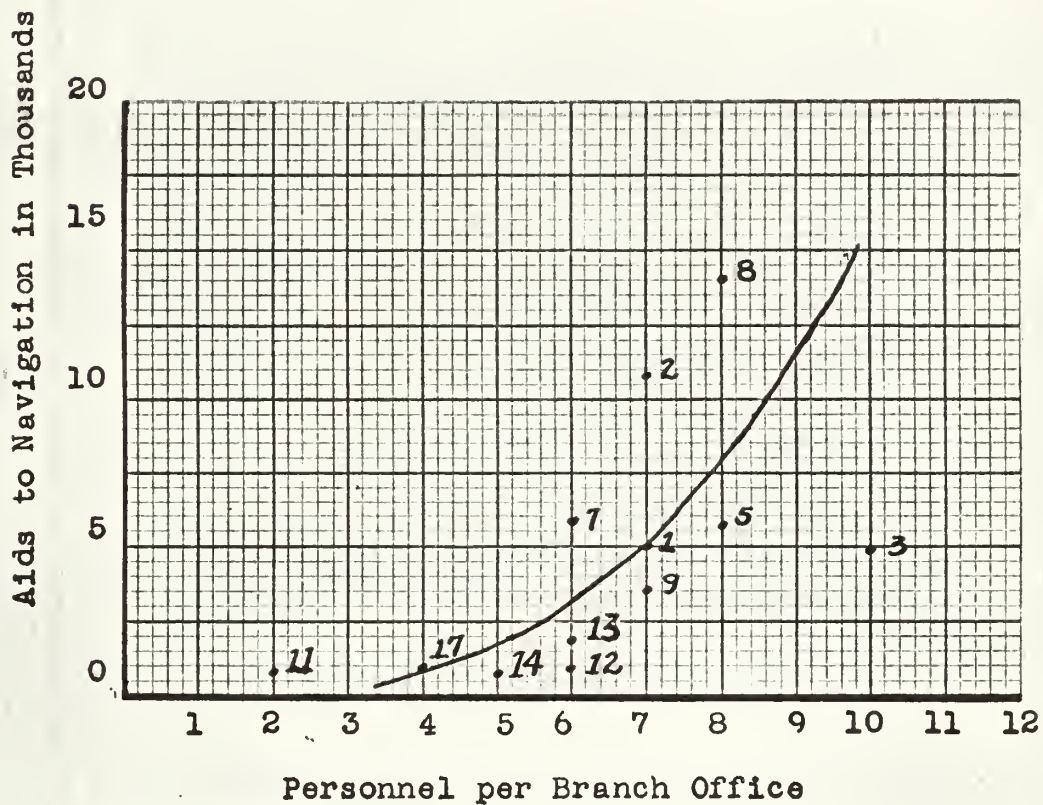
personnel for that particular number of aids to navigation on the vertical axis.

On the scatter diagrams that combine aids to navigation and manned units with aids to navigation responsibilities, the vertical axis is divided into units. One unit represents 1,000 aids to navigation, or 10 manned units with aids to navigation responsibilities.

Figure 15 Page 65 is a scatter diagram of the total aids to navigation in each district, and the number of personnel assigned to each branch office during January, 1962. The approximating curve provides a non-linear relationship between the number of aids to navigation and the number of personnel assigned to the branch office.

The Third and the Twelfth District Branch Offices are over-staffed by approximately one person in relation to the other district branch offices. The Second and Eighth District Branch Offices are under-staffed compared to the rest of the branch offices, but this may be offset by the working conditions on the rivers of the Second District, and by the large proportion of private aids to navigation in the Eighth District.

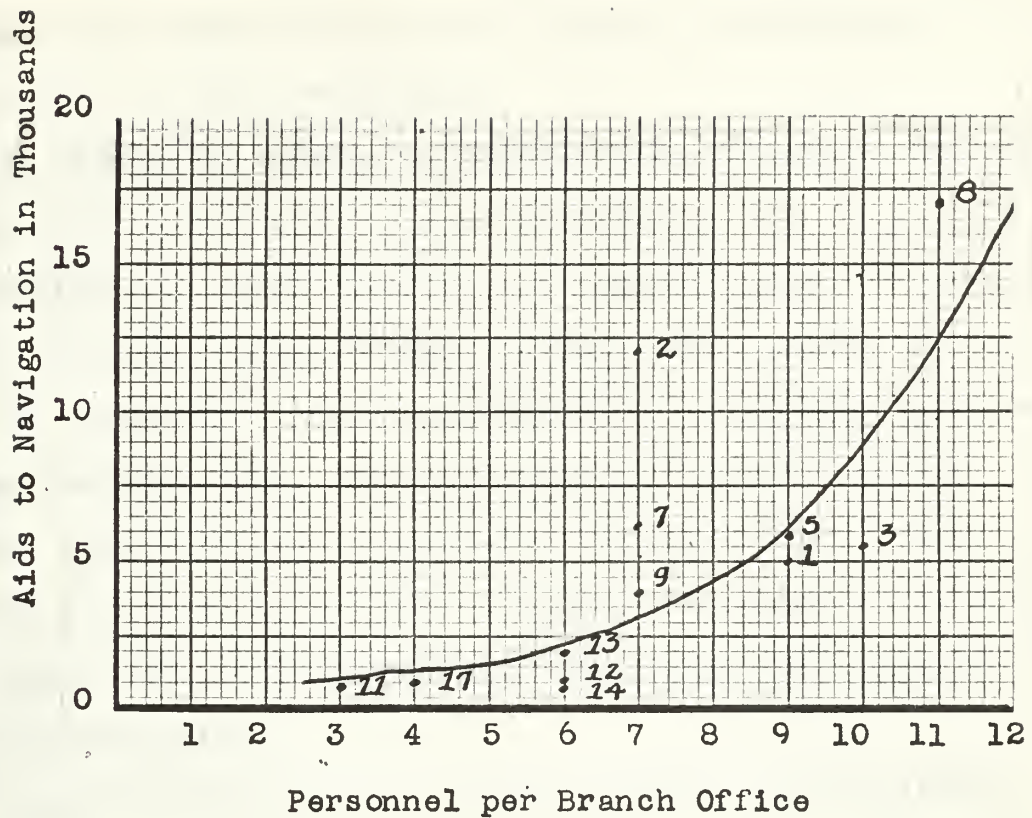
Figure 16 Page 66 presents data identical to Figure 15, but for the period of January, 1965. The Thirteenth District is no longer over-staffed, but the Twelfth and Fourteenth Districts are over-staffed by approximately one person in relation to the other branch offices. The Second and Eighth District Branch Offices are still under-staffed by comparison



Note: Number beside point identifies the district

FIGURE 15

RELATIONSHIP OF PERSONNEL ASSIGNED TO DISTRICT
BRANCH OFFICES AND AIDS TO NAVIGATION
JANUARY, 1962



Note: Number beside point identifies the district

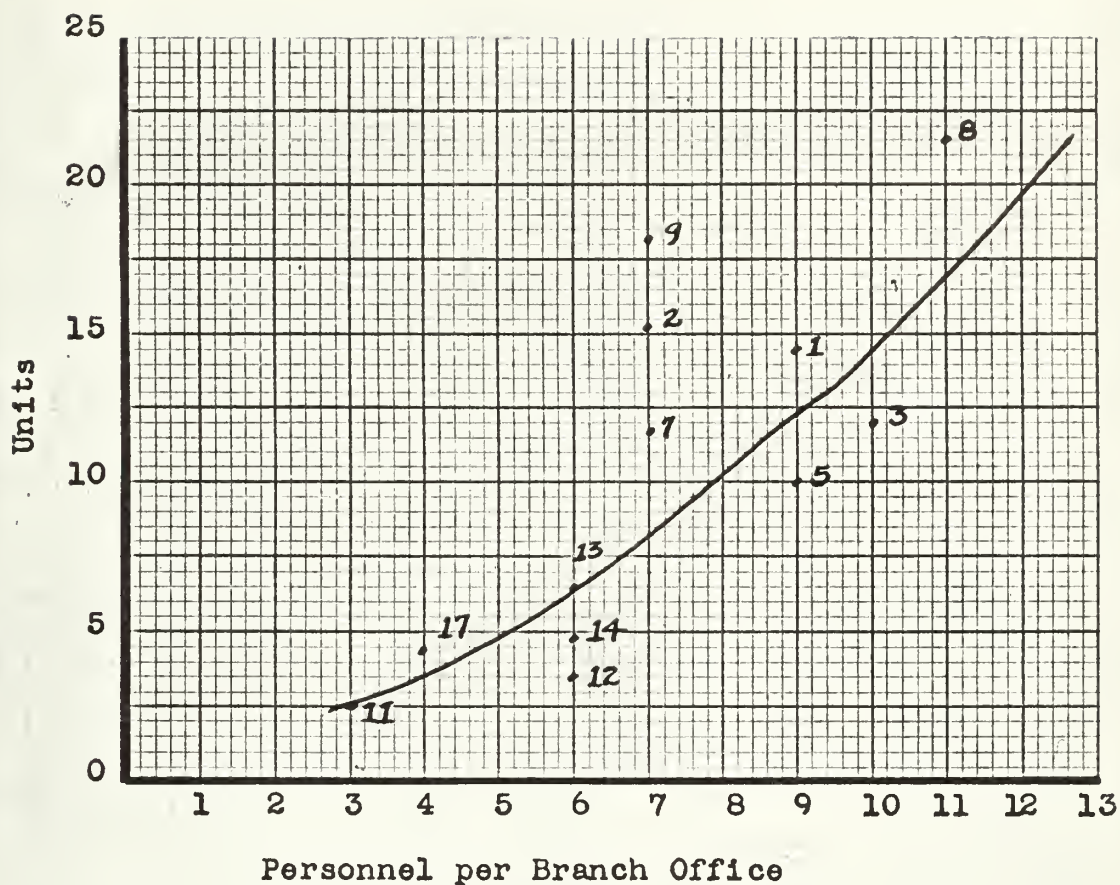
FIGURE 16

RELATIONSHIP OF PERSONNEL ASSIGNED TO DISTRICT
BRANCH OFFICES AND AIDS TO NAVIGATION
JANUARY, 1965

to the other branch offices, but the same limitations hold now as for the 1962 evaluation.

By adding the number of manned units with aids to navigation responsibilities in each district to the total aids to navigation in each district, the relationships between branch offices change. Figure 17 Page 68 combines the total aids to navigation with the manned aids to navigation units. during January, 1965. The Ninth District Branch Office becomes under-staffed by approximately one person. The Twelfth District Branch Office remains over-staffed by about one person, while the Eighth District Branch Office is no longer over-staffed.

Figure 18 Page 69 is a scatter diagram of the aids to navigation in each district proposed for January, 1968, and the number of personnel in each district branch office proposed for January, 1968. The number of aids to navigation in each district was obtained by adding the number of aids to navigation for January, 1965, to the number of aids to navigation to be increased by the Approved River and Harbor Improvement Projects. The proposed number of branch office personnel was obtained by adding the proposed increase in personnel, as indicated by each branch chief, to the number of personnel assigned to each district branch office in January, 1965. Considering that other aids to navigation may be established that are not included in the Approved River and Harbor Improvement Projects, the proposed increase may change substantially.



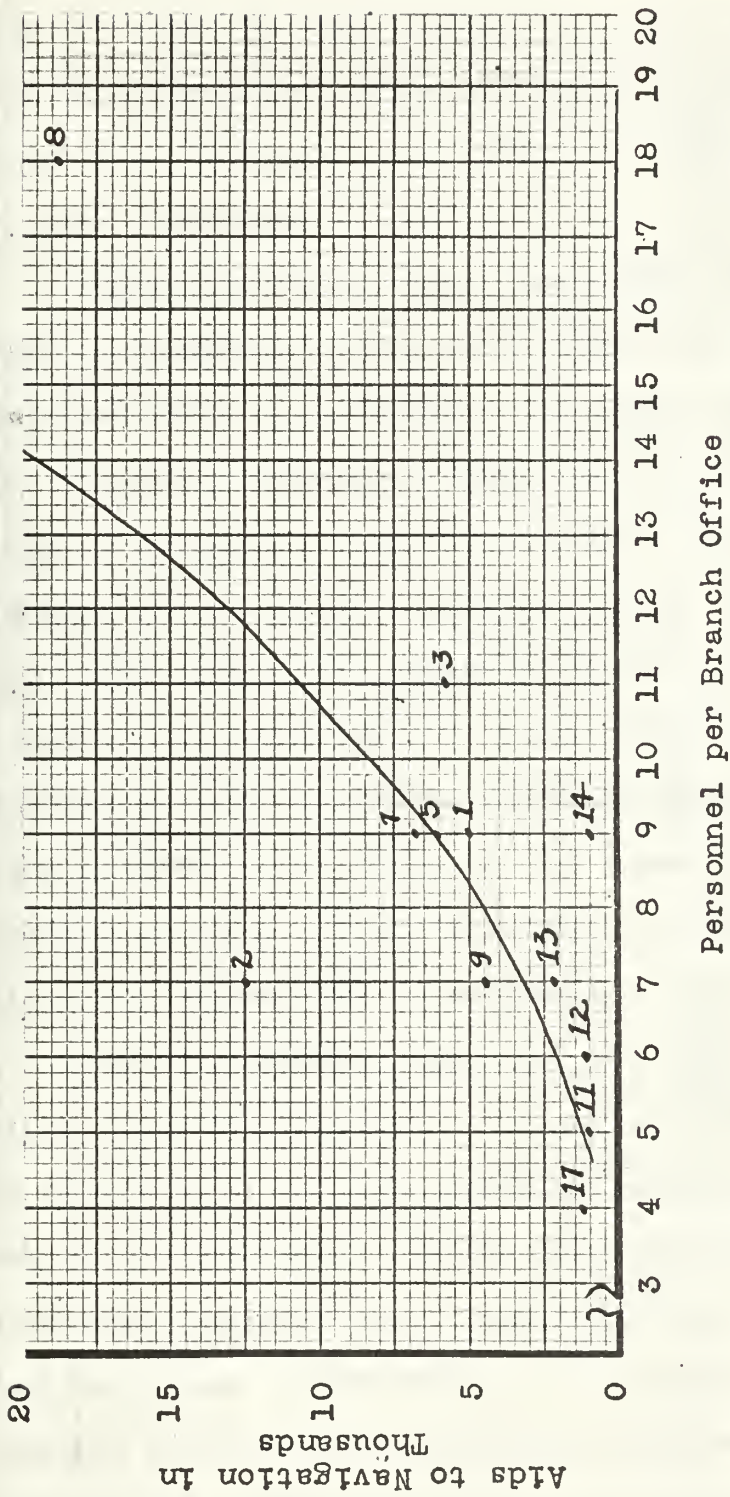
Note: 1 Unit represents 10 manned units or 1,000 aids to navigation

Number beside point identifies the district

FIGURE 17

RELATIONSHIP OF PERSONNEL ASSIGNED TO DISTRICT BRANCH OFFICES, AIDS TO NAVIGATION, AND MANNED UNITS WITH AIDS TO NAVIGATION RESPONSIBILITIES
JANUARY, 1965

FIGURE 18



Note: Number beside point identifies the district

RELATIONSHIP OF PERSONNEL ASSIGNED TO DISTRICT
BRANCH OFFICES AND AIDS TO NAVIGATION
FORECAST FOR JANUARY, 1968

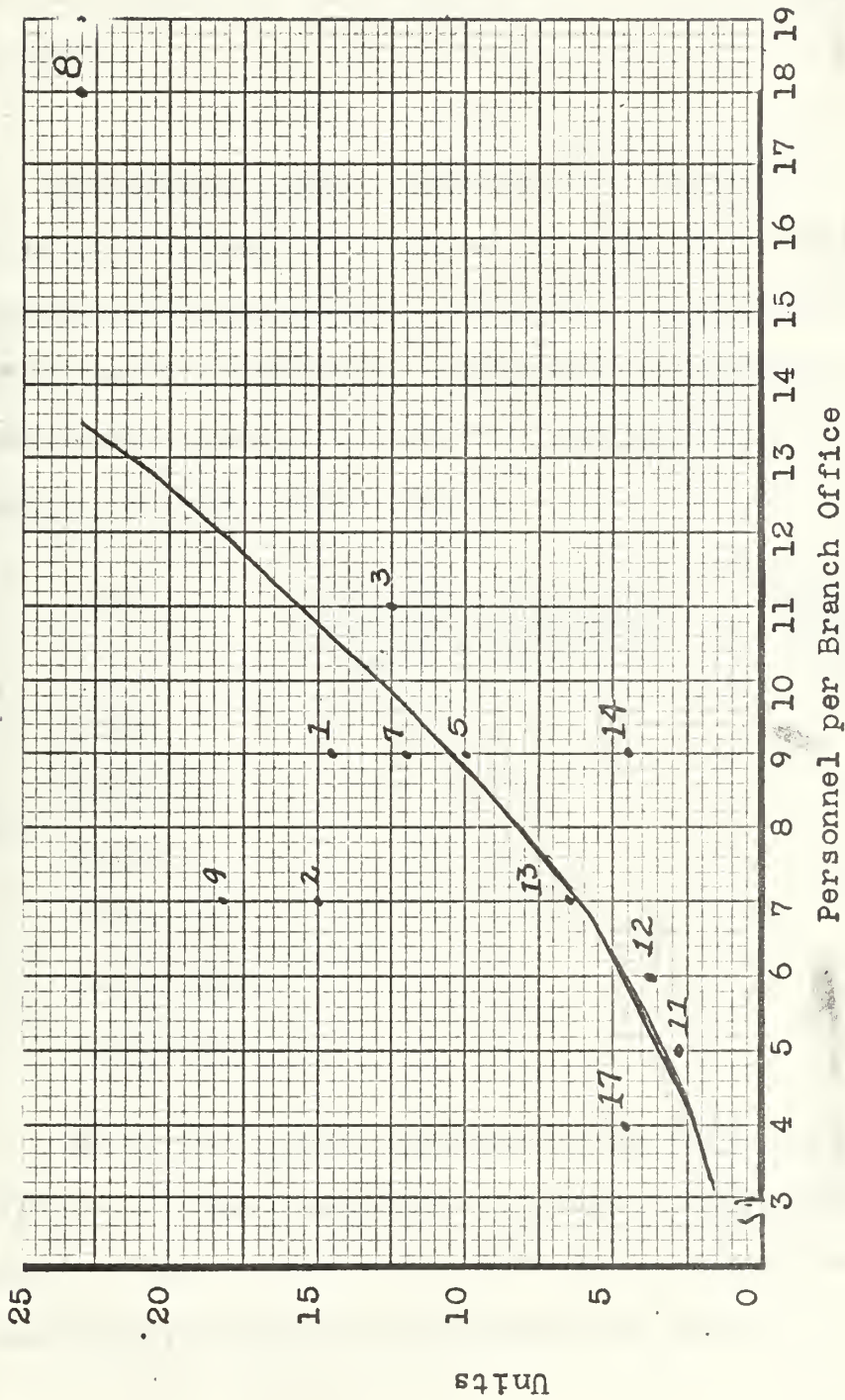
By 1968, the Fourteenth and Eighth District Branch Offices would be over-staffed by about two positions, while the Third District Branch Office would be over-staffed by about one position. The Second District Branch Office would be under-staffed.

Figure 19 Page 71 adds the number of manned units with aids to navigation responsibilities for each district to the proposed aids to navigation for 1968 as presented in Figure 18. Since no estimate of the number of manned units with aids to navigation responsibilities is available, the present statistics for manned units are used. Over the next three years the number of manned units can be expected to decrease slightly as automation of light stations takes place. The Fourteenth and the Eighth District Branch Offices will remain over-staffed in relation to the other branch offices as was shown in Figure 18, and the Ninth District Branch Office will become under-staffed as compared to the other branch offices.

The conclusions resulting from this analysis are limited since only the number of private and federal aids to navigation, and the number of manned units with aids to navigation responsibilities were used for comparison with the personnel assigned to a branch office. Moreover, no attempt has been made to determine if the branch offices were adequately staffed to efficiently carry out the mission of development, administration, and operation of the aids to navigation system as required by law.

The survey does provide, however, a comparison between

FIGURE 19



Note: 1 Unit represents 10 manned units or 1,000 aids to navigation
Number beside point identifies the district

RELATIONSHIP OF PERSONNEL ASSIGNED TO DISTRICT BRANCH
OFFICES, AIDS TO NAVIGATION, AND MANNED UNITS WITH
AIDS TO NAVIGATION RESPONSIBILITIES
FORECAST FOR JANUARY, 1968

the conditions existing in each branch office for the years of 1962 and 1965, and estimates of the projected conditions in 1968.

Recommendations. Based on the evaluation of the relationships between the number of aids to navigation and the number of manned units with aids to navigation responsibilities, the following increases of personnel in aids to navigation branch offices are recommended to take place during the next three years:

District	Personnel Increase desired by branch chief (Table IX)	Personnel Increases recommended by Investigator
Third	1	1
Seventh	2	2
Eighth	8	4
Eleventh	2	2
Thirteenth	1	1
Fourteenth	3	1

By limiting the increase in personnel in the branch offices of the Fourteenth and Eighth Districts, by 1968 the staff of the branch offices would be placed in a more normal relationship near the approximating curve.

Future Research. To provide a better standard for comparison of branch offices, a utility, or value, must be placed on other functions required in a branch office to

include more factors for evaluation. Some suggested functions which could be included are, time required to publish the Notice to Mariners, planning of new aids to navigation projects, correspondence, and inspection of aids to navigation.

Summary. To effectively fulfill the responsibility of administration and development of the aids to navigation system in the United States, the U. S. Coast Guard has assigned certain tasks to the different echelons of the Coast Guard Organization. The overall responsibility for the aids to navigation system is assigned to the staff components of the Commandant, while the District Commander is responsible for the administration of aids to navigation activities within the district.

This study is a comparative survey of the twelve district branch offices which administer and supervise the operations of the aids to navigation system within the districts. The difference in size of the districts and the number and type of aids to navigation assigned results in considerable variance in the work load, and in the number of personnel assigned to the different aids to navigation branch offices. This study has provided a comparison of the division of work for the supervisors in the same office and between supervisors throughout the Coast Guard, thereby providing an average for the division of work for supervisors assigned to the aids to navigation branch offices.

Through the use of a scatter diagram relating the number of personnel in a branch office to the number of aids to navigation and number of manned units with aids to navigation responsibilities, an approximating curve was drawn establishing a norm, or average, for staffing a branch office for a given number of aids to navigation and manned units.

An estimate was made of the future requirements for personnel in the District Aids to Navigation Branch Offices using the scatter diagram for 1965, and combining it with the projected work for rivers and harbors, as well as considering the estimates for additional personnel given by the Chief of each Branch Office.

This study has provided a systematic approach to developing standards for comparing the branch offices; in addition, it has provided a break-down of the use of supervisor's time throughout the Coast Guard District Offices. These standards can be refined or made more meaningful through further research to develop the proper weights and to determine the number of factors to be included for evaluation in the scatter diagrams.

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APPENDIX

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Monterey, California 93940

7 April 1965

From: LT Royce R. Garrett, USCG
To: Commander, First Coast Guard District (can)

Subj: District Aids to Navigation Branch Offices; a
comparative survey of

1. The growth during recent years of the total number of aids to navigation has placed increased demands on the District Aids to Navigation Branch Offices. It is my wish to study the impact of these changes on the branch offices in terms of their organizational implications. This study is being conducted as a research project for a graduate course in the Management Department of the U.S. Naval Postgraduate School. Permission has been obtained from the Commandant to request your assistance in conducting a survey of all Coast Guard District Offices. A copy of the completed survey will be made available to the Commandant.

2. A major purpose of this survey is to provide an analysis and evaluation of the present and future personnel requirements in the field of District Aids to Navigation Operations.

3. Your cooperation is respectfully solicited to help provide the information to conduct the survey. Annual reports to the Commandant will be utilized; but to obtain sufficient data for evaluation, additional information is requested in the questionnaire. It is desirable that the questionnaire be returned at an early date, but no later than 30 April 1965; however, if there are instances where completion of the questionnaire by 30 April 1965 is impractical, it is desired that the questionnaire be returned with estimates.

4. Realizing that the demands on the time of your staff are heavy, the questionnaire has been constructed in a concise form. Additional comments will be appreciated and evaluated in conjunction with the survey.

5. Thank you for your time and assistance.

Royce R. Garrett

Encl: (1) Personnel Allowance for the Aids to Navigation
Branch Office
(2) Estimate of Division of Work for Individual Position
(3) Questionnaire of Aids to Navigation Branch Office
Work-Load
(4) Request for Documents

PERSONNEL ALLOWANCE FOR AIDS TO NAVIGATION BRANCH OFFICE

It is requested that the personnel allowance (manning level) be listed below. For title, use Chief AtoN Branch, Hydrographer, etc.

Title	Allowed Rank/GS No.	Actually filling position Rank/GS No.	Percentage of time position vacant last 36 Mo.
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1. Chief
AtoN
Branch

2.

3.

4.

5.

6.

7.

8.

9.

ESTIMATE OF DIVISION OF WORK FOR INDIVIDUAL POSITION

This report is requested for each supervisor, or equivalent. (For example, all military officers, civilian technical advisors, or civilians with GS rating of 8 or above.)

The following information is requested to establish an estimate of the division of work by an individual on a weekly and yearly basis. Realizing that the work load varies, make the weekly estimate representative of a typical week and the yearly estimate based on the average of a two or three year period, or on a projected schedule.

Position/Title: _____

Weekly Estimate

Type Work:	Average Hours per Week
1. <u>Teaching</u>	10
2. <u>Grading</u>	10
3. <u>Supervising</u>	10
4. <u>Other</u>	10
5. <u>Other</u>	10
6. <u>Other</u>	10
7. <u>Other</u>	10
8. <u>Other</u>	10
9. <u>Other</u>	10
10. <u>Other</u>	10
11. <u>Other</u>	10
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96. <u>Other</u>	10
97. <u>Other</u>	10
98. <u>Other</u>	10
99. <u>Other</u>	10
100. <u>Other</u>	10

Correspondence with:	Civilians	_____
	Coast Guard-Commandant	_____
	Coast Guard-Other	_____
	Army Engineers	_____
	Other Military	_____
	District (staff)	_____
	Other	_____

Court Martials, boards or other military duties
not related to Aids to Navigation duties.

Staff Conferences and meetings concerning district or staff functions.

Planning (Aids for River and Harbor projects:
making schedules and planning work for AtoN units:
preparing CG-3213)

Preparation and review of LNM

Other (Specify) _____

Yearly Estimate

Activity	Average Number of Days per Year
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Leave (Annual)

Temporary Additional Duty:

Inspection of Aids to Navigation and AtoN units

Other Coast Guard business

QUESTIONNAIRE OF AIDS TO NAVIGATION BRANCH WORK-LOAD

It is requested that the following blocks be completed as indicated by each question.

The work load for the AtoN Branch Office during the past three years has ☐ decreased, ☐ remained about the same, ☒ increased.

If the answer to the above was increased, check the following types of work which have increased.

- ☐ Administration of Private Aids to Navigation
- ☐ Time required to process CG-3213 requests, and planning Aids for River and Harbor projects.
- ☐ Preparation and mailing of Local Notice to Mariners
- ☐ Number of reports of Marine Casualty form CG-910

Correspondence with the following:

- ☐ Commandant-Coast Guard
- ☐ Army Engineers
- ☐ Other military than Coast Guard
- ☐ Civilian request for additional aids to navigation or changes in present aids to navigation.
- ☐ _____

The number of U.S. Corps of Army Engineer District Offices with which liaison must be maintained is _____.

Of the annual construction of fixed aids to navigation handled by the District, _____ percentage is done by Coast Guard units.

Of the following type of inspections made each year by District personnel, check the block that most nearly represents the number of inspections that are made by AtoN Branch Office Personnel.

Type Aid Inspected	1/4 or less	1/4 - 1/2	1/2 - 3/4	3/4 or more
Fixed Federal Aids to Navigation				
Private Aids to Navigation				
Bridges				

By dividing the District Aids to Navigation into areas by exposure to open sea, estimate the percentage of aids in each of the following areas:

	Seacoast open lakes (exposed)	Harbor, Bays (semi-exposed)	Rivers, ICW, and protected waters
Floating	%	%	%
Fixed	%	%	%

During the past three years has the AtoN Branch Office staff been increased by the addition of permanent personnel? ☐ Yes, ☐ No.

If the answer to the above was Yes, complete the following:

	Year added	Position/Title	Rate/Rank/Rating
1.			
2.			

During the past three years have any positions been upgraded? ☐ Yes, ☐ No.

If the answer to the above was Yes, complete the following:

	Prior to Change Rank/Rate/Rating	After Change Rank/Rate/Rating
1.		
2.		

Based on your advanced programs or projected work-load, do you anticipate a need for additional personnel in the next three years? ☐ Yes, ☐ No.

If the answer to the above was Yes, complete the following:

	To be Requested Rank/Rate/Rating	Year Required
1.		
2.		

REQUEST FOR DOCUMENTS

It is requested that a copy of the following documents be attached to the survey.

1. Revised Quarterly Project Schedule (form CG-3739) dated March, 1965.
2. United States Civil Service Commission Position Description for each civilian employee attached to the AtoN Branch Office.
3. A description of the Positions for military personnel in the AtoN Branch Office.
4. Functional chart or manning chart for the AtoN Branch Office.

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Garrett

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A comparative survey
of the United States
Coast Guard district
aids to navigation
branch offices.

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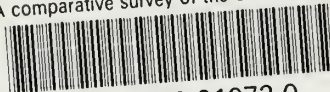
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